Sigfried Giedion

The Eternal Present, Volume II

The Beginnings of Architecture

The A. W. Mellon Lectures in the Fine Arts

THE A. W. MELLON LECTURES IN THE FINE ARTS
delivered at the National Gallery of Art, Washington, D.C.

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S. GIEDION

THE BEGINNINGS OF ARCHITECTURE

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The A. W. Mellon Lectures in the Fine Arts have been delivered annually since 1952 at the National Gallery of Art, Washington, DC, with the goal of bringing "the people of the United States the results of the best contemporary thought and scholarship bearing upon the subject of the Fine Arts." As publication was always an essential part of the vision for the Mellon Lectures, a relationship was established between the National Gallery and the Bollingen Foundation for a series of books based on the talks. The first book in the series was published in 1953, and since 1967 all lectures have been published by Princeton University Press as part of the Bollingen Series. Now, for the first time, all the books in the series are available in one or more formats, including paperback and e-book, making many volumes that have long been out of print accessible to future generations of readers.

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wild (at our first) beasts uttered human words
— our second coming made stones sing like birds — . . .
E. E. CUMMINGS (1963)

FOREWORD

The Beginnings of Art, the first volume of THE ETERNAL PRESENT, dealt with prehistory. The present volume, *The Beginnings of Architecture,* deals with the first high civilizations, Egypt and Sumer. The two volumes are independent of each other, yet related by a common interest — the problem of constancy and change.

It is a problem that docs not end with prehistory nor with the first high civilizations. It permeates the entire history of mankind. At no time, however, did the problem of constancy and change, rooted ineradicably in the human soul, Hare up with such intensity as it did during the first high civilizations, following upon the fundamental changes caused by the establishment of a strictly differentiated social order.

The Eggshells of Prehistory. Since time immemorial, man had lived in isolated, independent groups. Even in the context of the new stern, hierarchical society, certain of man's primeval beliefs lived on with a remarkable constancy.

Among the most notable was the role of the animal, venerated throughout prehistory as a being mightier and more beautiful than man. The constancy with which this veneration persisted side by side with the worship of anthropomorphic deities — the transmutation of animals into deities and deities into animals, and the granting of immortality to animals through mummification — bears witness that at no time during the entire Egyptian period was the prehistoric bond with the animal severed.

Creating an Anthropomorphic Cosmos. The establishment of the state coincided with the establishment of a pantheon of anthropomorphic gods in which each deity possessed a clearly differentiated physiognomy, had a particular task to perform, and was part of a patriarchal family with a dictatorial ruler at its head.

Closely connected with the conception of individual, anthropomorphic gods was the recognition of the human body — more especially the female body — as beautiful. Delicacy in its sculptural treatment was achieved in the Fourth Dynasty, and thereafter the portrayal of the female body has remained a supreme goal of the sculptor's art.

Constancy and Change in the Mode of Expression. The differences between paleolithic art and art of the high civilizations leap to the eye. The astonishing thing is the constancy with which certain constituent elements of paleolithic art live on. The most telling qualities of prehistoric art endure: the stress upon outline and the sinking of reliefs into the stone. Although the uneven rock walls of the caverns have been replaced by plane surfaces, the sunken relief persists as a light-catcher, the illumination of one rim of the sunken outline being emphasized by a dark line of shadow along the other even in the glaring sunlight of the New Kingdom pylons.

The Origins of Monumental Architecture: Mesopotamia. The creation of the first man-made temple is synonymous with the emergence of monumentality. The prehistoric Al ‘Ubaid acropolis of Tepe Gawra XIII, with its open plan of three temples, and the large temples of Uruk (ca. 3000 B.C.) were not surpassed or even equaled throughout Mesopotamian history.

Ziggurats: Stairways of the Gods. The ziggurat, the temple tower, originated early but did not reach its culmination (as in the ziggurat of Ur) till around 2000 B.C., half a millennium later than the pyramids. Ziggurats, in contrast to the pyramids, were accessible and stood within the precincts of the city. Their sequences of terraces afforded opportunity for Sumer’s most inspired architectonic invention: the monumental stairway.

Beginnings of Stone Architecture and the Ka: Egypt. It was the grave that gave birth to the first stone architecture. The sacred precinct of Zoser’s mortuary temple at Saqqara, with its step pyramid and galaxy of inner courts, was built of the “eternal” material for one sole purpose: to provide an eternal existence for the Ka of the dead king.

Pyramids: Rites and Space. The form of the pyramid consists of four equal isosceles triangles converging on a single point. Plane surfaces, the constituent element of Egyptian architecture, reign supreme — a triumph of abstract form.

Through its symbolic impact the pyramid merges and even competes with eternity. Human endeavor has never again achieved such sublime simplicity in materializing man’s irrepressible urge to link his fate with eternity. Immaculate precision makes logic merge with enigma and mystery.

The Great Temples and the Eternal Wandering. Ground plans of the great temples of the New Kingdom correspond to Egyptian belief, which accepted no standstill in life or death. Their layout expressed the idea of an eternal wandering. Except for the dark cella in which the image of the god

was preserved, every part was conceived as a place of passage. Even the great hypostyle halls, with their forests of columns, formed passageways for the king and his procession taking the sacred statue of a god on his wandering to another sanctuary. No interior space was provided for the community as, for example, in a Christian church.

Hatshepsut and the Cosmic Inner Court. The terraced mortuary temple of Queen Hatshepsut was built in the rock amphitheater of Deir el Bahari and represents the radiant climax of Egypt: a rare unity of architecture and sculpture which remained unsurpassed. Like all Egyptian architecture, this temple is oriented vertically, its finely articulated man-made structure being embedded with great daring within the immense vertically of the rock amphitheater.

Supremacy of the Vertical. One of the great changes from prehistory, with its equal rights of all directions, was the advent of the vertical as an organizing principle to which everything had to be related. This occurred at the beginning of the high civilizations, with the rise of architecture. The pyramid, the ziggurat, and monoliths in the form of steles and obelisks expressed the vertical as the connecting link with the cosmos.

The horizontal is the line of repose: the vertical is the line of movement. Yet horizontal and vertical belong together, connected by the angle of ninety degrees, which, together with them, acquired an extraordinarily powerful position. Axis and symmetry are consequences of this new principle of organization.

The penetration into Egyptian art of the vertical as an organizing principle is overwhelming. In reliefs all figures arc projected onto a vertical plane, and in sculpture a vertical axis passes through the body, forming the line of intersection of two vertical planes crossing each other at right angles. This method of representation was retained throughout three millenniums.

The meaning of the squared grid, invented by the Egyptians, was not to facilitate the reproduction of the external appearance of things, but to project their absolute proportions onto the vertical plane.

The First Architectural Space Conception. Space conception is an automatic, psychic recording of the visible environment. It develops instinctively, usually remaining in the unconscious.

The first space conception in architecture encompasses the high civilizations of Egypt and Sumer and also Greece. The common denominator, despite deep-rooted differences in almost every sphere of life,

was a common attitude toward the placing of volumes in limitless space. The pyramids of Giza and the Acropolis of Athens give perhaps the clearest expression of the attitude toward architectural space throughout this long period. Differences between them are more obvious than their underlying common approach to space.

In neither the Greek nor the Egyptian civilizations was there any development of interior space that could compare with the immense force their builders knew how to express when confronting their structures with the open sky.

ACKNOWLEDGMENTS

This volume, like the first, is the outcome of the A. W. Mellon Lectures in the Fine Arts, given at the National Gallery of Art, Washington, 1957. The studies on which it is based have extended over some fifteen years.

I wish to acknowledge assistance given to me from many different quarters.

John Marshall of the Rockefeller Foundation kindly helped to open a number of doors to me in Egypt and Iraq.

I was able to spend some weeks in the resthouse of the late Zakaria Goneim, Chief Inspector of Antiquities, Saqqara, at the time he discovered the untouched entrance to the unfinished pyramid.

I had the privilege of being introduced to all parts of the Zoser complex at Saqqara by Jean-Philippe Lauer, whose indefatigable efforts have resurrected the first architecture in stone.

Also at Saqqara I was able to meet and talk with W. B. Emery.

Herbert Ricke, Director of the Swiss Egyptological Institute in Cairo, kindly gave me permission to reproduce some of his important reconstructions of pyramid-age structures.

In Iraq, the officials of the Baghdad Museum, under the late Director-General of Antiquities, Naji-al-Asil, were very helpful. Fuad Safar, excavator of Eridu and Hassuna, then engaged on studies of the painted temple at Al ‘Uqair and the ziggurat of Aqar Quf, gave me much precious advice.

At Nasiriya, in southern Iraq, the Governor was most hospitable and provided us with jeeps and an escort for our excursions through the desert.

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In Munich I had the benefit of advice from Professor H. W. Müller and also from Dr. J. von Beckerath, an outstanding scholar on questions of Egyptian chronology, to whom I am particularly indebted for his kindness in writing an essay providing a detailed insight into the thorny problems of precise dating in the first high civilizations. Publication of this volume was too far advanced for this essay to be inserted in full, but excerpts are included in Part I.

In Paris I received much assistance from Marie-Louise Tisserant, of the Department of Egyptian Antiquities of the Louvre, until her recent death in a motor accident.

Very special thanks arc due to my friend William Stevenson Smith, Curator of the Department of Egyptian Art of the Museum of Einc Arts, Boston, for his patient counsel while I worked in the Museum library and his unfailing assistance with endless matters of fact and detail in the preparation of this volume.

At Harvard University, as for the first volume, I wish to express my indebtedness to the constant help of the library staffs of the Graduate School of Design, the Widener Library, and the Fogg Museum. Most of the drawings adapted from other plans or based on the author's sketches were made by Tao Ho, a student of architecture at the Graduate School of Design.

My friend G. E. Kidder Smith kindly gave permission for the reproduction of some of his brilliant photographic work. Most of the photographs, however, were taken by the author. Typography and layout arc by Herbert Bayer, based on a preliminary dummy prepared by the author.

As she did for the first volume, Professor Jaqueline Tyrwhitt (Graduate School of Design, Harvard University) has undertaken or supervised all aspects of translation and shouldered the heavy burden of putting this book on its feet.

A summary of this entire two-volume work constituted the first Gropius Lecture at Harvard University, April 15, 196'1, under the title "Constancy, Change and Architecture."

S. GIEDION

Doldertal, Zurich
August 1963

The “eye” in the margins of the text refers to an illustration on the page indicated. An original color illustration is indicated by “col.” A page number alone refers to a textual passage, “I” indicates a reference in Volume I of the present work.

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PART I THE DIFFERING DESTINIES OF EGYPT AND SUMER

Constancy and change in the archaic civilizations

The problem of constancy and change during the first high civilizations lies at the root of our inquiries. We approach Egypt and Sumer in terms of a continuity from prehistory rather than looking back from the standpoint of Greece. Greek art is not taken as the universal standard against which perfection and less than perfection can be assessed. Thus the question immediately posed is: What were the elements of prehistory that still lived on in the bloodstream of the high civilizations?

In the earliest high civilizations, as in prehistory, the separation of belief from reality, the sacred from the profane, was not yet accentuated. The isolation of **52 ff** reality, symbolized by the dethronement of the animal, had begun, but was not yet complete, at any rate in Egypt.

The study of continuity helps to elucidate the problems of change, which contain the seeds of future development. It enters into the new experiences of organizing wide territories and of building up community life in newly formed cities. The position and the development of architecture are linked to these new dimensions.

In a period so full of symbolic expressions reaching far back into prehistory, architecture cannot be dealt with in isolation. Like sculpture and painting, architecture was not created to please the eye in the first instance. The statues in **107 ff** which human beauty is for the first time discovered and expressed — especially the beauty of the female figure — were placed in eternal darkness or in inaccessible locations.

The form of the pyramids is a typical expression of relationship between the sacred and the profane. The strictest geometrical precision is united with a longing for eternity. In this sense Plato, attuned to Egyptian thought, considered the laws of geometry to be eternally constant and unchanging. The form of the pyramid and the superb imagination which gave shape to

Egypt's nascent architecture is but the tip of the iceberg, which emerges above the water while the main mass lies hidden below the surface. Thus the beginning of architecture can **320 ff** only be treated with reference to the religious background from which it arose.

Egyptian architecture has the closest links with the principles of sculpture and relief. The laws of composition that govern a pyramid and a sculpture are identical. **148 ff** In approaching Egyptian architecture we must be aware of Egyptian modes of expression in sculpture and relief — above all, relief, which is bound as closely to Egyptian architecture as prehistoric animal reliefs to the rock walls from which they are hollowed out. Egyptian reliefs are of a special kind: sunken reliefs. They never project beyond the wall surface, in contrast to the high reliefs **157** of Mesopotamia and, later, Greece. It is interesting to note constancy and **161** change in the interpretation of the different needs of prehistory and the archaic civilizations by the use of similar artistic means. Prehistoric reliefs never project beyond the natural surface of the rock, and though in Egypt the irregular rock **1:371 ff** walls become flat, smoothly polished planes, the reliefs remain embedded in their surface. The discovery of the expressive qualities that lie within the flat plane is one of the fundamental inventions of Egyptian art. As soon as Egypt had found herself, everything became subject to the laws of the plane surface.

Primeval art was concerned with the delineation of outline, whether engraved in clay, bone, or rock. Mastery of the outline was fundamental to primeval art. The Egyptian reliefs were also cut into the stone. Methods altered with changing situations but the principle remained the same. An Egyptian artist was often termed "Drawer of contours," which was, as Hermann Junker demonstrated with great philological insight, a privileged social position. In burial rituals the painter stands, bearing his offerings, next to the highest official of the dead master (1959, p. 52).

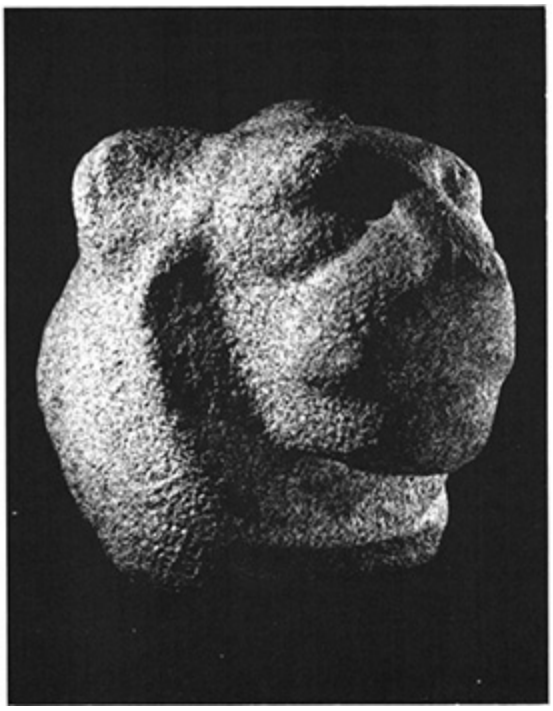
The sunken relief is among the most typical products of Egyptian art. It is true that most writers lay more emphasis on the three-dimensional statues, which anticipate the Greek development. The reliefs were brightly painted, and thus as close to painting as to architecture: in them the Egyptians' exceptional narrative gift is unfolded.

Sunken outlines had acted as light-catchers for flickering torches in the primeval caverns. They acted similarly in the half-darkness of the funerary chambers of the pyramid age and even, later, in blazing sunlight on the

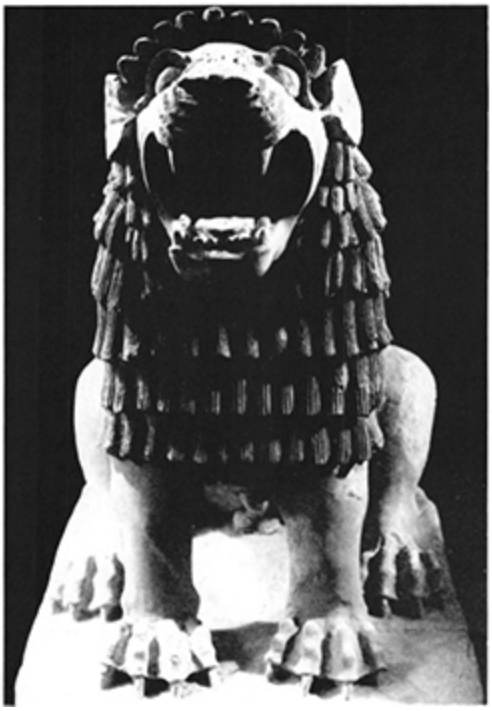
great pylons of the New Kingdom. The synthesis of wall, sculpture, and structure, which must be continually resolved anew throughout the history of architecture, here achieved perfection for the first time.

Likenesses and differences between Egypt and Sumer

Aside from the general problems of constancy and change a special problem arises in connection with the first two high civilizations. This is the basic difference between Mesopotamia and Egypt, expressed in different attitudes toward life, and in the different destinies of the two countries as well. Two sculptures can be instanced to demonstrate these differences: one comes from the pyramid age, around 2400 B.C., the other from the peak period of ziggurat building, around 2000 B.C.



EGYPTIAN LION'S HEAD *of rose granite from the mortuary temple peaceful of strength King Ne-user-ra. A sculptural marvel of innate dignity and*



MESOPOTAMIAN LION *of terra cotta. One of a pair of furiously snarling predators which guarded the city gates of Tell Harmal*

Behind the hall of columns of the pyramid temple of King Ne-user-ra (Fifth Dynasty), Ludwig Borchardt found the more than life-size head of a striding lion. There were but a few isolated details upon which to base its stance and its position within a deep niche before the innermost part of the temple (1907, pp. 69-70).

4 This lion's head of rose granite is a sculptural marvel of innate dignity and reposeful strength. The head emerges from the mane as from a wreath. The mouth is shut, indicated only by a curving line. The ears are barely pricked, the eyes half sunken. The planes are handled masterfully, and by disregarding minutiae the work has been raised to an awe-inspiring level, as in the earlier sculpture, **37** from the time of King Narmer, of the god Thoth in the form of a baboon. Its discoverer termed it incomplete, perhaps because the final polish is lacking, but it is certainly a complete work of art.

By analogy to Mesopotamian representations this lion has been considered a temple guardian. It is far more likely to be a personification of the king. This lion is no symbol of defense: "It is a symbol of the ruler" (Schweitzer, 1948, **73** p. 25). The majestic Sphinx of Giza bears the head of King Chephren, whose peaceful lion's body has similarly been interpreted as guardian of the necropolis. Its actual meaning was nearer to later

Egyptian interpretation when — its original significance having been forgotten — the Sphinx was considered to represent the god Horus.

An indication that the lion of Ne-user-ra is no guardian is given in the only well-preserved relief from this temple, found close to the striding lion. This depicts an intimate scene in which the jackal-headed god Anubis presents the enthroned king with the *ankh,* the sign of life (Borchardt, 1907, p. 16).

5 The two earthenware lions of Tell Harmal, which crouch on either side of the gate to this small Sumerian city close to Baghdad, display a terrifying brutality. At first sight they seem to consist solely of menacing open jaws with bared fangs. Flaring nostrils and protruding eyes are emphasized by strongly sculptured eyebrows, their hackles are raised, and their ears pricked. A pair of eternally furious predators. All else is but a foil: their squat bodies, extended claws, and the encircling **57** manes that hang in coarse tufts like the woolen robes of Sumerian priests. This remained the standard type of representation till the days of Babylon, when Nebuchadnezzar had a frieze relief of sixty lions in many-colored enamel erected on either side of his processional way. Like the monsters of Tell Harmal fifteen hundred years earlier, they snarl with open mouths, flaring nostrils, and raised hackles: eternally ready to attack the stranger.

The different natures of these Egyptian and Mesopotamian lions express the different destinies of the two countries. Some regions seem condemned to follow a certain course from start to finish. Mesopotamia, whose north and south were subject to constant invasions from the Asiatic highlands, was assigned a tragic destiny from the start.

Attitude toward death

The origin of every religion lies in man’s longing to make contact with supernatural forces so that he may gain knowledge of the future. To this is added another, more encompassing and inextinguishable human desire, the longing for a prolongation of life, for a continuation of existence after death. Man’s attitude toward death and the hereafter changes. This presents a key to the nature of a religion and, consequently, to a people’s attitude toward its destiny. This is particularly marked in the case of Egypt and Sumer, whose cultures developed simultaneously.

The Egyptians' optimistic approach to the hereafter shows their special gift for overlooking, or at least lightening, the dark side of human destiny. Life on earth was just a beginning. Death was but a way station, a bridge to an eternal and wonderful existence. The famous Pyramid Text that opens "O King N thou art not gone dead, Thou art gone alive" (§134; tr. Piankoff, 1957, p. 7) enshrines a basic concept of the Egyptians.

Eternal continuity in the hereafter required co-operation on the part of the living. The departed needed a permanent — an eternal — dwelling place on earth. Even into the Late Period, sun-dried bricks were considered adequate for the houses and palaces of the living, but the dead required an indestructible material: stone. The rise of stone architecture can, in the first instance, be attributed to the Egyptian conception of the nature of death. **264 ff**

Life in the hereafter was an almost directly material reproduction of life on earth, but more magnificent — almost divine. The belief in the continuation of earthly life with all its ramifications was so strong that in King Zoser's mortuary complex at Saqqara everything was foreseen that could contribute to his royal **277 ff** existence: from government buildings to his private quarters under the pyramid and under his southern tomb. The complex also expresses what lay nearest to his heart: the eternal perpetuation of his ruling power. The largest courts are given over to ensuring this through the renewal of the king's royal majesty by means of the Heb-Sed, or jubilee, festival. The Heb-Sed court was bordered by ***2*84** chapels of the forty-two provinces which paid tribute to Zoser. Two stones were placed on the axis of the great court between which the king probably ran the ritual Heb-Sed race to give evidence of his manly vigor. In his underground **267** mansion Zoser had himself thus portrayed.

This extravagant program was not carried on by the pyramid builders of the following Fourth Dynasty. The growing influence of the priesthood demanded **320 ff** an increasing concentration upon the ritual by which the dead king was transformed into a deity. The desire for an enduring dwelling called stone architecture to life, but stone temples only rose to monumental dimensions in the New Kingdom, when Egypt set about becoming a world power.

Among the measures necessary to ensure continuity of life was the preservation of the earthly body. This gave rise to the science of mummification. That **48** this privilege of eternal life was also extended to

animals is a hint that, even to the last, they were not banished from equality with mankind, and that all creatures were included in a single community.

As an additional safeguard, at least during the peak period of the Old Kingdom, mortuary statues of the dead — or rather Ka statues — were placed in the **326** mastaba tombs of the nobles and in the valley temple of King Chephren.

The dead consumed the same nourishment as the living, and so they needed regular offerings placed before the false doors to their tombs. The dead lord was **438** pictured sitting on a stool and relishing the sight of a great stack of abundant offerings. We have these rites to thank for many of the most beautiful reliefs and, in the New Kingdom, for magnificently colored murals in the necropolis of Thebes, in which all the produce of the lands of the dead lord is brought to care for his needs. The painters did their best work in the service of the cult of the dead.

The grain in the fields of the hereafter grew twelve feet high, and to ensure the perpetuation of these harvests, laborers were needed to work in the fields of Osiris. Egypt soon relinquished the slaughter of laboring slaves, whose graves **271** have been discovered around the First Dynasty mastabas in north Saqqara. In the Old Kingdom, live sacrifices were replaced by statuettes of servants placed inside the tomb, and from the time of the Middle Kingdom even these were superseded by small figurines (ushabtiu) in stone, terra cotta, or wood, which were magically given life to undertake hard labor in the Osirian fields (Speleers, 1923, p. 24). Similarly, figurines of female servants served as concubines to the dead lord.

Death possessed every privilege. This conviction must have existed from very early times. W. B. Emery found a boat for the use of the dead next to a royal mastaba from the First Dynasty in north Saqqara, and another in Heliopolis. **272** Other, more modest graves by the side of the Nile also had small boats buried beside them.

Like the stars and the sun-god Ra, the dead were caught up in a cosmic wandering. They did not remain perpetually within their tombs, nor perpetually in the hereafter. Some idea of existence after death is given in a funerary text from the Eighteenth Dynasty: “Thou goest in, thou comest out, while thy heart is glad in the favor of the Lord of Gods. ... It so happens that thou livest again. *Thy soul will not be kept away from thy body.* . . . Thou receivest what is upon earth. Thou hast water, thou breathest the air, thou drinkest to thy heart’s content" (Piankoff, 1957, p. 3; my italics).

The ordinary dead were accorded the grace to live like gods. A late hymn to Amon-Ra runs: “Ancient One who early arises as a youth, who takes hold of the limits of eternity, who circles on high, passing through the Netherworld in order to give light to the land with what he has created’’ (p. 13).

Death betokened no end, it was a translation into the cosmic cycle of the eternal renewal of life. The process of thought on which this is based can be dialectically termed a unity that goes beyond the present: “All that lives and all that grows is the result of an inexplicable and completely mysterious co-operation of heterogeneous factors. . . . Conflicting forces, one might say mutually exclusive forces, combine in the creation of a new state’’ (p. 29).

It was in Sumer that expression was given for the first time to the tragedy of human existence and the fateful destiny that all must endure: “Man, suffering, striving, doing, as he is and was and ever shall be’’ (Burckhardt, 1868; tr. 1943, p. 82), man without appurtenances, naked as the celestial goddess Inanna, who, stripped bare in her descent into hell, stood naked before the queen of the nether world. Mankind appears in all its desperation, terrified of death and clutching at present existence, at earthly possessions, at whatever is to hand.

Even the hero Gilgamesh, one-quarter man and three-quarters god, was bound to follow the course of human destiny. His sufferings were but the fate of everyman after death. The spotlight is not on the adventures of Gilgamesh and his friend Enkidu, as it is on Hercules, whose exploits were so much emphasized by the Greeks (e.g., on the metopes of the temple of Zeus at Olympia). The recurrent theme in the Mesopotamian tablets is the severing of relations between two humans caused by the early death of one. After the death of Enkidu, Gilgamesh rushed across the country in a terrified agony of despair, distraught with fear of his own death. He could get no rest until the gods permitted him to meet the shade of Enkidu in the nether world. The two recognized each other, but the news Gilgamesh brought back from the nether world was the destruction of all hope. Enkidu told him: “My body . . . has dwindled, is full of dust, into dust it has sunk" (Pallis, 1956, p. 687).

Gilgamesh desperately desired to avoid the same fate, and the rest of the epic recounts his combat with death by means of a frantic search for the plant of eternal life. When at length he finds it on the floor of the ocean, a

serpent, emerging from the waves, eats it while Gilgamesh is bathing. The concept of a preordained fate ruling both the fortunate and the unfortunate, a theme developed two thousand years later in the *Iliad,* is here grimly prefigured in the Gilgamesh epic.

These differing attitudes toward death were mirrored in the two peoples' differing conceptions of the nether world. To the Egyptians it was a place of renewed strength and rebirth. Every evening the sun in its cosmic journey passed through **131** the body of the goddess Nut so that it might next morning be born from between her thighs. Age-old chthonic versions of the creative powers of the earth here have been blended together by the Heliopolitan priesthood.

The nightly journey through the underworld of the sun-god Ra in his boat was beset with dangers which were only there to be happily overcome.

The Sumerian vision of the nether world was of a place totally inimical to life, a place of misery and despair: "Like the Hebrew *Sheol,* the *Kur* [the Sumerian nether world] is the dark, dread abode of the dead. It is a land of no return, whence only exceptionally the shade of a once prominent figure might be called up for questioning" (Kramer, 1959, p. 197).

Kur was a place of restless longing for what has been, for life: "After his death," says S. N. Kramer, describing a poem published in 1919 by Stephen Langdon, "the great king Ur-Nammu comes to Kur . . . . After 'seven days,' after 'ten days,' had passed, the 'wail of Sumer' reaches him. The walls of Ur which he had left unfinished, his newly built palace which he had left unpurified, his wife whom he could no longer press to his bosom" (1956, pp. 182-83).

In "Inanna's Descent to the Nether World," Kramer (pp. 186-93) retranslated and reassembled, from broken and scattered tablets, a story upon which many scholars had worked since 1914.

When Inanna, goddess of love and queen of heaven, went into the nether world, she was stripped naked, bereft of her divinity, and killed by the death-dealing eyes of her sister, Ereshkigal, queen of the nether world. Her corpse was suspended from a stake. Only through ruse and magic could she return from the nether world, and then only under the surveillance of demons, on the condition that she deliver a substitute. She could find none until, coming to the city of her lover, Dumuzi (Tammuz),

She fastened the eye upon him, the eye of death,
Spoke the word against him, the word of wrath,
Uttered the cry against him, the cry of guilt:
"As for him, carry him off."
The pure Inanna gave the shepherd Dumuzi into their hands.

It was Kramer who discovered the end of the story. Up till then, Dumuzi and Inanna had been considered the greatest pair of lovers in Sumerian mythology. He was a vegetation-god like Osiris, and when Inanna was prematurely bereft of him it had been believed that she descended once more into the nether world to bring him back to earth. The cold-blooded inhumanity of the new version gives us an insight into the extreme pessimism of the Mesopotamian world. What is expressed in this Sumerian poem was repeated again and again until the tumultuous history of the Land of the Two Rivers ended.

Influences upon the beginnings of architecture

Unlike Egypt, in Mesopotamia there could be no impetus to create an architecture based on such vague and intangible convictions and such an abysmally pessimistic approach to life after death.

The dead had to rest beneath the earth. There was nothing for them in heaven. Everyone must descend to the nether world, to the "land of no return." It would thus be senseless to erect permanent dwelling places for the dead. So Mesopotamian graves were simply covered with earth, and thus it remained. The serried rows of so-called kings' graves in the Royal Cemetery of Ur, which date from the First Dynasty of Ur (ca. 2500 B.C.), are but underground charnel houses. The most sensational of them, found by C. L. Woolley, belonged to Queen Shubad, who was buried there with eighty sacrificed members of her household. The golden vases and inlaid harps show a cultural standard which bears comparison with the elaborate furnishings, inscribed with hieroglyphs, found in the tomb of Queen Hetep-heres, the mother of Cheops. But architecturally, Mesopotamian tombs were without significance. Yet this was the period when the great pyramids of Cheops, Chephren, and Mycerinus were storming the heavens.

Mesopotamian graves always remained the same. The crypts of the Assyrian kings of the eighth century B.C. found at Khorsabad also had no

superstructure.

361 ff The Egyptians' cult of the dead gave birth to their finest architectural achievements. The state temple of the New Kingdom at Karnak is the most impressive, **415 ff** but the mortuary temple of Queen Hatshepsut at Deir el Bahari is the masterpiece.

The hopeless nothingness into which the events of Sumerian mythology flow mirrors the fate of Mesopotamia. Few records of power combats between city-states, such as those between Lagash and Umma in the early historic period, have been found, and these have had to be pieced together from the few scattered **60** inscriptions. The earliest account, on the Vulture Stele, describes the victorious campaign by Eannatum of Lagash against the city of Umma (ca. 2460 B.C.). This struggle continued on and off for a century, until finally both were conquered by the mighty Sargon of Akkad. Half a millennium later the same scene was replayed in the Isin-Larsa period (ca. 1960-1700 B.C.) till this power struggle was brought to a decisive end by the great Hammurabi of Babylon. The same story is continually repeated, varying only in dimensions. Finally the world empires of Babylon and Assyria alternately extinguished one another until Cyrus the Persian put an end to the independent existence of Mesopotamia forever.

A long sequence of pitiless conquerors carried out widespread destruction on both sides. On the occasion of one revolt, Assurnasirpal III of Assyria (883-859 B.C.) ordered "all the chief rebels flayed and the scaffold [which he had erected for this purpose] draped with their skins . . . others . . . impaled on stakes above the tower" (Schmökel, 1957, pp. 252-53).

When Assurbanipal, the otherwise cultivated leader of Assyria, conquered Babylon in 648 B.C., the devastation was carried to such extremes that even the bones of previous kings were exhumed. He boasted: "The sepulchres of these earlier and later kings ... I destroyed, I devastated, I exposed to the sun. ... I laid restlessness upon their shades" (Champdor, 1957; tr. 1958, p. 88). This conqueror's power reached to the margins of the then known world, with the exception of Egypt. Less than half a century later, however, in 612 B.C., Assyria was decimated, and Nineveh razed to the ground. "Nineveh was buried under a heap of ashes; her arrogant warrior-people had been driven off to the bottom of Nergal's nether world, where each newcomer receives as his only sustenance the sixty sicknesses

that are to afflict him throughout eternity, where he becomes but one more spectre among the drifting shadows, dreaming forever of a return to earth to devour the living" (pp. 91-92).

Babylon's magnificence was renewed for the last time by Nebuchadnezzar: its resplendent ziggurat, Etemenanki — the Tower of Babel — its great Ishtar Gate, and stately processional avenue. Barely twenty years after Nebuchadnezzar's death Babylon was conquered by Cyrus, in 538 B.C. The Babylonian kingdom became a Persian province. Seldom in history has destiny rolled with such recurrent ruthlessness, and simultaneously with such cinematic compression.

Periods of Egypt and Sumer: dates and disparities

In comparing the disparate structures of the two archaic civilizations, the dates for their beginnings are particularly important, for both in turn took the lead. Unhappily there is no agreement — no *communis opinio* — in determining the start of the historical era. For earlier periods we have only relative datings as to their time and duration, derived from the position and thickness of the strata in which their artifacts were found.

Even after the invention of script — around 3000 B.C. — there are but the barest evidences of tangible history. Early Sumerian clay tablets are inscribed with reckonings of goods in the temple communities and, in the first two dynasties of Egypt, the few hieroglyphs found on funerary steles or as seal impressions on vases only give the name of the dead lord or the name of the reigning monarch.

Later in Egypt the "king lists" become available. These are tablets on which the names of the successive kings are engraved within their cartouches. They date from the period of the New Kingdom. Sety I placed the Tablet of Abydos in his temple to honor his seventy-six antecedents. The Tablet of Karnak was placed in the festival hall (Akh Menou) of Tuthmosis III, and the Tablet of Saqqara was found in the tomb of the royal scribe of Ramesses II. Only one of the papyrus lists, which were also placed in the temples, has been found: the greatly damaged Turin *Canon of Kings,* from the time of Ramesses II.

These lists contain several versions of the number of years each Pharaoh reigned. In addition, there are several fragments of a history of Egypt

written by the Egyptian priest Manetho around 250 B.C., which now seem more reliable than had long been thought. Alan Gardiner throws light on these and other sources in his *Egypt of the Pharaohs* (1961, pp. 46-68).

Apart from these, we have the aid of certain astronomical indications from Egyptian texts. Foremost among these are the so-called Sothis dates. The rise of the star Sothis (now called Sirius) occurred simultaneously with the annual onset of the Nile floods and marked the beginning of the new year. Few statements relating to this event can be astronomically determined (Parker, 1950), and only two such dates are really certain, one in the Middle Kingdom and one in the New Kingdom. Parker places the important inauguration date of the Egyptian calendar shortly before 2900 B.C. At that time the year opened with the appearance of the star Sothis, in contrast to the earlier calendar, which, as with almost all primitive peoples, was based on the phases of the moon.

The Egyptologists pride themselves on the discovery of these astronomical dates, which place them on a surer footing than the Sumerian scholars. R. A. Parker's highly illuminating work turns on mathematical arguments, difficult for the nonmathematician to follow. He is less interested in the exact dating of individual kings or dynasties than in the important date of the opening of Egyptian history.

The "short" and "long" chronologies

It is now possible to make a thorough revision of the earlier, too ancient datings of the prehistoric and protohistoric periods of Egypt and Mesopotamia, and, beyond this, for the historic period. Today preference is given to the so-called short chronology. But the date of the opening of the historic period, which plays an important role in both high civilizations, is still under discussion.

The British Museum, the Metropolitan Museum of Art in New York, and the Museum of Fine Arts in Boston place the beginning of the historic period at 3200 B.C., while J. Vandier of the Louvre holds to the date of 3300 B.C.

The importance of establishing dates for the beginnings of the historic period in Egypt and Sumer is illustrated by the work of a great scholar who, in 1925, calculated that the date for Egypt should be pushed back to 4186 B.C., so that its achievements would have a thousand-year priority over

similar ones in Mesopotamia (Meyer, 1925, p. 46). In 1941, Alexander Scharff sought clarification of this famous and much disputed question of which could claim seniority (p. 6). These inquiries were quite understandable, since it was only in the thirties and forties that excavations in Mesopotamia probed down to virgin soil and that Mesopotamia's priority in the fourth millennium could be firmly established (as in Tepe Gawra and Hassuna in the north, Eridu and Uruk in the south).

To arrive at direct comparisons between Egypt and Sumer we need a chronology jointly established by Egyptologists and Sumerian scholars. Though comparative tables appear in almost every book, they rarely agree. It is only possible to compare the major trends.

As early as 1926, Scharff had attacked the long chronology of E. Meyer. In Scharff's view, the Early Dynastic period opened in 2850 B.C. In his last book, in which he dealt with Egypt and A. Moortgat with the Near East (Scharff and Moortgat, 1950), the chronologies of Egypt and Mesopotamia were almost synchronized.

W. F. Albright is also in agreement with the short chronology for both Egypt and Mesopotamia (1946, p. 364). Later he stated more explicitly: "We are now safe in approximating the chronology of Scharff and Stock, from which the independent chronology, defended by the writer since 1925, seldom diverges by over fifty years" (1954, p. 30).

Since then, on the basis of Parker's studies and his precisely evaluated relationships between the datings of individual periods and, above all, the beginning of the Egyptian state, J. von Beckerath has pushed back the beginning of the First Dynasty slightly. After a careful sifting of dates, working backward, von Beckerath came to the conclusion that the First Dynasty began in 2950 B.C. plus or minus fifty years (von Beckerath, 1961, pp. 31-32). However, from the viewpoint of our book the divergence of this date from the one currently employed, 2850 B.C., is not material, since in any case no precise links are possible with the Sumerian development. In summarizing, von Beckerath comes to the conclusion that "research has now attained such a general measure of certainty that only the Early Period (First and Second Dynasties) and details of the so-called Intermediate periods between the chief periods (the Old, Middle, and New Kingdoms, and the Late Period) remain unclear" (1961, p. 28). I am keeping to his dates.

How carefully the Egyptologists have probed into the matter of datings can be seen in the following comparative table sent to me by von Beckerath in connection with the duration of the Old Kingdom:

Dynasties	Scharff 1950	Parker 1950	Helck 1962	Hayes 1962	V. Beckerath 1962
VI-VIII	ca. 190 years	187 years	187 years	ca. 185 years	187 years
V	" 130 "	160 "	141	" 150 "	152 "
IV	“ 120 "	11.3 "	11.3 "	" 120 “	118 "
III	“ 50“	50“	55 “	55	52 “
Total	“ 490“	510“	496 “	“ 510 “	509 “

Comparative chronology can provide certain insights. There is, for example, the question: When was human beauty first recognized? Throughout prehistory the human face and the human posture were considered inferior to those of the **104** animal. Then German archaeologists working in Uruk found a lovely female countenance, in transparent alabaster, which reflects the whole Sumerian melancholy. It was found in a Jemdet Nasr stratum of about 2800-2700 B.C. In **109**. Egypt female beauty was first recognized some centuries later, though it then encompassed the entire female figure.

The periods of Mesopotamia

Histories of Egypt and the Near East describe the various periods of each country. We shall here touch only on those which occur in this book.

PREHISTORIC BEGINNINGS: The prehistoric periods in Mesopotamia are named after the locality where the artifacts of each period were first discovered. In historic time the names of cities often take the place of localities.

Hassuna period: This north Mesopotamian village culture goes back to around 5000 B.C., with richly informative settlements and decorated pottery that ranges **101** from simple triangles scratched upon convex vessels to a masklike female face **100** upon a vase neck. It is related to the painted pottery of Samarra, which itself **454** has connections with the highly developed animal drawings on the pottery of Iran (Giyan, Sialk, Susa).

Al ‘Ubaid period: Named after a' mound of ruins not far from Ur; its pottery is spread over almost the whole of Mesopotamia. In this period temple building attained **196** its greatest elegance. The finest attainments

were the acropolis of Tepe **202** Gawra in the north, around 3500 B.C., and Temple VII at Eridu in the south, both built about the same time.

Al ‘Ubaid pottery acquired highly sensitive shapes, such as the flattened libation **243** vessels with very slender spouts — the so-called tortoise vases. Sculpture, on the other hand, did not progress beyond idol figurines such as the bird-headed **1:177** female figures from Ur, or the countless figurines found in Tepe Gawra and many other places.

Uruk period: Around 3000-2800 B.C. Named after the chief cultural center of Sumer, the city of Uruk, the biblical Erech and contemporary Warka. This was the city of the fertility-goddess Inanna. In the precinct of her sanctuary stood a **203** temple (Uruk level IV) never surpassed in Sumer in size or elaborate articulation.

The use of script in this period marks the opening of the historic era.

Jemdet Nasr period: Around 2800-2600 B.C. Although the period is named after a mound of ruins thirty kilometers northeast of Babylon, the chief finds come from Uruk: numerous reliefs, a tall alabaster ritual vase dedicated to the **121** goddess Inanna, and the lovely female face referred to earlier. Probably there **104** were greater works of sculpture than we know of in the preceding Uruk period, for the perfection of the Jemdet Nasr period can scarcely represent a beginning phase. Cylinder seals also attained perfection.

Protoliterate period: This appellation derives from the Chicago School and is used “to designate those cultural phases in early Mesopotamian history in the course of which writing first appeared and developed until it reached the stage in which the phonetic principle . . . began to be employed. . . . We include in this term the later part of what has been called ‘Uruk period’ and the whole of the ‘Jamdat Nasr period’ ” (Delougaz and Lloyd, 1942, p. 8, footnote).

EARLY DYNASTIC PERIOD: This appellation is widely used; the period is frequently subdivided into First, Second, and Third Early Dynastic. It embraces the period from 2600-2350 B.C., from the time when Sumer was split up into a number of rival city states until its conquest by Sargon of Akkad.

Mesilim period: Around 2600 B.C. Named after King Mesilim of Kish, a city not far from Babylon, it begins the Early Dynastic period. In the Mesilim period the dominance of the priestly office makes inroads on the

notion of royalty despite the continued existence of the priest-king. This is the period in which, for the first time, a spacious king's palace was discovered, with courts, halls, and columns (Palace A at Kish). Apparently also to the Mesilim period belongs "the first great wall of world history, which should archaeologically be shifted to the Mesilim period, the 9.5-kilometer-long double wall of Uruk, with its more than eight hundred semicircular towers, but only two gates'' (Schmökel, 1957, p. 19).

First Dynasty of Ur (*Ur I period*): Around 2500 B.C. Renowned for the discovery of the Royal Cemetery of Ur, with its "death pit.'' Copper sculpture was developed to full three-dimensionality in the temple of King A-anni-pad-da at Al 'Ubaid (6 km. from Ur). At the same time the city of Lagash was growing, seventy-five kilometers north of Ur. The grandson of this city's founder, Eannatum (ca. 2460 B.C.), inscribed upon his Vulture Stele the first account of wars **60** and battles.

AKKADIAN PERIOD: Around 2350-2150 B.C. Named after the newly founded capital of Sargon of Akkad. The first conqueror on a large scale, he also created the first standing army — 5400 men. Like the later dictators of Babylon and Assyria, **65** he was deified. This is the period when the cylinder seals blazon the dethronement of the animal.

After two centuries of unified rule the state was split up by the invasion of the Guti (ca. 2200-2075 B.C.). After their displacement came the final renaissance of Sumer.

UR III PERIOD: Around 2065-1960 B.C. Under King Urnammu the largest ziggurats (temple towers) were built in Sumer. Standards of house building reached a level unsurpassed even today in the Near East: the patio houses of **186** around 2000 B.C.

The main theme of the fragmentary reliefs on the Urnammu stele is the erection **123** of the great ziggurat of Ur, but they show also that king and god now stand on an equal footing.

This brings to a close the Sumerian culture, which for more than two millenniums had formed the basis of Mesopotamian learning and architecture.

114 A generation earlier, under the rule of the pious priest-king Gudea, the city of Lagash was producing the finest portrait statues of Mesopotamia. Their humanity outshines not only the later representations of Assyrian

rulers in obvious poses of might; even in Egypt there are no portrait statues which combine such gentleness with such an awareness of human destiny.

BABYLON: Around 1830-1530 B.C. During the few centuries of the old Babylonian empire's existence, the earlier Sumerian knowledge was assimilated and expanded. In comparison with other periods of Mesopotamian history this was a quiet, almost gentle time: a creative pause for breath.

Babylon first came to full power with the rise of Hammurabi (1728-1686 B.C.). The dates of Hammurabi's reign were independently ascertained by German and American scholars, and establish a fulcrum for the short chronology.

He cast off the divinity of the Akkadian kings and spoke of himself as "Shepherd of the people." After the conquest of Mesopotamia, the organization of human communications was his innermost desire. The famous Hammurabi Stele in the Louvre, with its three hundred laws, gives proud evidence of this.

There is little to report of artistic works from this period. In poetry, the epic *Enūma Elis* does not, like the epic of Gilgamesh, deal with affairs of human destiny. It is a creation myth in which the gods wage a grisly battle for existence against the primordial earth mother Tiamat (Pritchard, 1950, pp. 60-72). There was, however, a deepening and expansion of scientific knowledge. It is inessential that the Pythagorean theorem has not been found set down in its accepted form. It expresses, and grew out from, the Mesopotamians' interest in determining relationships between astral constellations and human affairs. As we shall see, the content of the Pythagorean theorem was undoubtedly known at the time of Hammurabi, as a small tablet with cuneiform writing in the Babylonian **473** collection of Yale University shows. The people of Mesopotamia were the finest logicians and mathematicians of their time. But one must beware of setting their scientific aims on a parallel with those of today. What we call science was for them but a by-product of the foretelling of human destiny. In the forefront, just as in prehistory, stood their longing to make contact with supernatural forces. Spells, magic, predictions, were not only part of their religion — they were systematically and officially organized. In contrast to later times, they were all closely bound up with official religious beliefs. G. Contenau, an eminently dependable scholar, considers magic a most

important element in the life of the state (1947). The belief that man possesses a certain sensitivity that can enable him to foresee future occurrences, or, as we would now say, that he can develop mediumistic powers, lay at the basis of the Cabala, for example, as Contenau points out. Man, made in the image of God, also bore within himself certain supernatural powers.

On the circuitous routes to the knowledge of contemporary atomic physics, which often contradict ordinary logic and rationalism, we have begun to be less certain than the Positivists that we understand what is taking place: an attempt at systematization of the nonmaterialistic powers at work in man.

Omens, the prediction of future occurrences from certain definite signs, constituted the motivating force of Babylonian scientific observations. As Otto Neugebauer, the best scholar of the scientific knowledge of antiquity, says, astronomical determinations were undertaken "to provide empirical material for omina; important events in the life of the state were correlated with important celestial phenomena, exactly as specific appearances on the livers of sacrificial sheep were carefully recorded in the omen literature (1951, p. 95).

KASSITE PERIOD: Around 1560-1150 B.C. The rule of the Kassite mountain people fell like a blight on the Sumerian, Babylonian, and Akkadian cultures. Little is left from the many centuries of their dominion. The best insight into this dark **126, 127** period is given by the *kudurru* (steles), with their assembly of symbols of deities. These boundary stones, which were preserved in the temples, reveal a preponderant interest in agriculture and, bound up with it, a great respect for titles to land. There appears to have been little interest in the founding or development of cities. The Kassites' legacy to architecture is just as barren: a small temple to Anu in Uruk, whose façade with its figures of deities deviates **235** from Mesopotamian tradition, and the ziggurat Aqar Quf (ca. 1400 B.C.), whose steepness would have appeared barbaric to Mesopotamian eyes.

This long cultural bloodletting had its consequence upon the final development of Mesopotamia. It is true that knowledge was further refined. King Assurbanipal assembled objects from the Sumerian and Akkadian cultures in his library at Nineveh, and an antiquarian interest in buildings of the past arose, much as in the contemporary Saite period in Egypt. But

nothing new was inaugurated. A development of four millenniums came to an end in an atmosphere of frustrated expectations, just like Gilgamesh.

The periods of Egypt

The periods of Egypt, early and late, have a crystalline simplicity compared to the lacerated fate of Mesopotamia. Unlike Mesopotamia, Egypt's early period gives no hint of its later development — it bears no comparison with Mesopotamia's early period and is almost provincial. It will be touched upon only fragmentarily here.

PREHISTORIC BEGINNINGS: In Upper and Lower Egypt there were village communities. These were extremely primitive right up to the threshold of the historic period. The oldest agriculture developed in Lower Egypt. Cylindrical granaries were found in the neolithic villages of the Faiyum, west of the Nile and about fifty miles south of Cairo, and reed huts in neolithic Merimdeh, on the west bank of the Nile delta. Early Ma'adi and El 'Omari, near Cairo, had round and oval huts, and in Ma'adi we meet a custom that goes back to Mousterian times: burial of the dead beneath the dwelling.

In the south, information is obtained mostly from the many cemeteries, and these give their names to the different periods. Their absolute dating is still conjectural.

Tasian period: Fifth millennium. Named after Deir Tasa, about twenty miles south of Assiut. Few relics, one of them a black, tulip-shaped beaker with simple triangles inlaid with white.

Badarian period: Fourth millennium. Named after El Badari, just south of Deir Tasa. Primitive pottery and figurines, such as the compact clay figure of a woman with a heavy head, large incised eyes, and hatched vulva. Other sculpturally **1:177** interesting seated female figurines also appear at this time, with fully **75** developed breasts and powerful thighs.

Amratian period: Second half of the fourth millennium. Named after El 'Amrah, south of Abydos; sometimes also called the Nagadah I period, after Nagadah, about fifteen miles north of Thebes. Primitive figurines in terra cotta and ivory; pottery vessels engraved with animals, men, and latticelike hatchings. Occasional glimmerings of later cosmic concepts appear, as on an oval dish on **129** which the Mountains of the East and of the West, the

morning and the evening sun and its daily and nightly orbits, are drawn in white.

Gerzean period: Reaching into the historic period. Named after El Gerza, south of Cairo. By far the most important preliminary period in northern Egypt. Imagination is visibly less constrained, as shown in the different types of ships with superstructures and human figures drawn upon pottery vases, as well as a **360** wall painting in Hierakonpolis from this period. Cosmetic palettes were also further developed.

Egypt was now eagerly seeking new means of expression and adopting motifs from the more advanced Sumerians (Kantor, 1.944, pp. 110-36; 1952, pp. 239-50).

THE OLD KINGDOM: The period of groping and searching also encompassed the first two dynasties, the Early Dynastic period (ca. 2950-2650 B.C. Scharff gives 2850 B.C.). The breakthrough occurred in the Third Dynasty, whose duration was as short as it was glorious. Such a sudden eruption of the imagination as appears in the mortuary complex of King Zoser at Saqqara has seldom been observed **274** in architectural history. The Third Dynasty is included in the so-called pyramid age by reason of Zoser's step pyramid. We do not wish to depart from customary usage, although the program of the Zoser complex is quite different from the priest-ordained ritual of the dead of the Fourth Dynasty pyramid complexes (2591-2473 B.C.). This transposition of complicated ritual into architectural form at Giza leads to a high point in Egyptian history in the **316** twenty-sixth century.

A period of decline set in slowly in the Fifth Dynasty (2473-2321 B.C.) and accelerated in the Sixth Dynasty (2321-2160 B.C.). The highly centralized power structure split apart, and with it the state. There followed the First Intermediate period (ca. 2134-2040 B.C.), a time of misery and decay leading to sheer anarchy and the rise of powerful feudal overlords (nomarchs) in the provinces. Anyone wishing to study the state of development at this period must seek his information from the tombs of the nomarchs.

THE MIDDLE KINGDOM: 2040-1785 B.C. Egypt recovered herself in the Middle Kingdom, the shortest of the three great periods of Egypt. We are now very far from the ingenuous assurance of the Old Kingdom, when, especially at its summit, everything was directed toward one eternal ascent.

All existence had been disrupted by anarchy and destitution, and toward the end of the Middle Kingdom new calamities were already threatening. If one looks into the faces of the leaders of these later days one finds them deeply engraved with lines of worry about the future.

In the meantime, however, there was a period of peculiar intensity, whose obscure sources have recently been elucidated as far as possible (Winlock, 1947). We have only fragmentary indications of the political events and the works of art. Both in the north and in the south only isolated relics of the temples of the Twelfth Dynasty have survived from which their dimensions may be inferred. Our only knowledge of the temple of Sesostris I (1971-1929 B.C.) in Heliopolis comes from his obelisk, the first of its kind. His Heb-Sed pavilion near the temple of Karnak, its columns engraved with the most delicate reliefs, **364** was found broken up and buried beneath an Eighteenth Dynasty pylon, and was carefully pieced together again.

The reunification of the Two Lands proceeded from Upper Egypt, the impetus coming from Thebes. The internal warrings between the nomarchs, the rulers of Thebes, and the kings of Herakleopolis were brought to an end by Mentuhotep II. It was he who again brought unity to the kingdom, in 2040 B.C., and he held it securely together throughout the fifty years of his reign. Only a few years after his death the short-lived Eleventh Dynasty also expired.

Mentuhotep's tomb is the most important of those of the Middle Kingdom if **413** one judges from the standpoint of originality. It lies in a valley at Deir el Bahari, beside the much later mortuary temple of Queen Hatshepsut. In conception it lies between the tombs of the nomarchs and Hatshepsut's mortuary temple.

In the Twelfth Dynasty (1991-1785 B.C.) King Amenemhat I left his residency in the north to build himself a new capital south of Memphis, near the entrance to the Faiyum. The notion of royalty had lost some of its divinity. The Amenemhats and Sesostrises carried out intensive land settlement projects.
They built canals and transformed the area around the Faiyum into a fertile region.

The genius loci imposes itself. For the last time in the north, royal graves take the form of pyramids. But means for creating a solid construction were lacking, as was the conviction that the god-king was the indispensable intermediary for eternal life. The brick pyramids of Lisht and

Dahshur, erected within sight of the pyramids of Sneferu, did not even survive their own time. Thus it came about that the granite pyramidion, the peak of Amenemhat III's pyramid **448** (1842-1798 B.C.), was recovered intact with its evidences of the highly refined reliefs of the late years of the Twelfth Dynasty.

After the First Intermediate period art had to recover its form-giving powers. The statues of the unifier of the kingdom, Mentuhotep II, are still retrogressive. The coming subtlety appears in the sunken reliefs, as in the scene of Queen Kawit's toilet, with its deeply engraved outlines. From the beginning of the **155** Twelfth Dynasty, however, a certain hardness can be observed, as in the relief of the god Ptah embracing King Sesostris I (1971-1929 B.C.), from one of the **92** columns of the reassembled pavilion at Karnak.

It was only toward the close of the Middle Kingdom that art rose to its highest intensity: in the sculptures of King Sesostris III (1878-1842 B.C.) and Amenemhat III. These are the most singular of that period. The eternal youth characteristic of the Old Kingdom is no more. These statues were not placed in inaccessible tombs. They stood in the temple, like those of Gudea in Lagash (ca. 2000 B.C.). But they do not bear the benign yet impersonal features of the Asiatic. These statues fall between the unapproachable severity of Zoser in his **291** serdab and the somewhat effeminate expressionism of the Akhenaten portraits. Their combination of bitter experience and lofty majesty has no counterpart in other periods of Egyptian art.

This represents one side of Egyptian life in the early second millennium. It was otherwise in the realm of private life. Here, in the reliefs, paintings, and jewelry, a rare delicacy emerged. Painting and jewelry attained astonishing subtleties of color. This appears, for example, in the painting of the inner walls of a wooden chest from Deir el Bersheh, in central Egypt (Museum of Fine Arts, Boston), where birds, fruit, and offerings are painted directly onto the brown cedarwood in warm, bright colors, leaving the wood between them untouched. The art with which the color is applied gives a striking translucence to the objects, such as is achieved today by the use of similar techniques in the paintings of Joan Miró.

The same sheen appears on the colored stones which stud the jewelry found in the graves of the princesses at Lisht. Semitransparent precious

stones set between thin gold threads in the perforated royal breastplates (pectorals) give a shimmer to the plumage of a falcon almost like the painting on the wooden sarcophagus from Deir el Bersheh. The carving of the slender wooden figures of **462** bearers of offerings found in the same grave shows the same delicacy as the reliefs of the period. Cyril Aldred's small book *Middle Kingdom Art in Ancient Egypt* (1950) contains a concentrated evaluation of the art of this time, and W. Stevenson Smith is an excellent guide through the involvements of its history (1958, pp. 88-120).

THE NEW KINGDOM: The Second Intermediate period set in as furtively as the First. Its limits are even more vague, since the Hyksos invasion can only be firmly determined a century after the breakdown of central authority. The Hyksos, who built their capital, Avaris (now identified with Tanis), on the eastern Nile delta, were not a homogeneous racial group. They have left little behind them other than countless tax collector's scarabs, which are found everywhere in the provinces.

One cannot consider these "shepherd folk," as they were called in antiquity, as simple barbarians like the Kassites, who at that time were conquering Mesopotamia. The Hyksos' advanced technology enabled them to conquer Egypt. In his chapter on "Hyksos Importations into Egypt," Winlock says that the Egyptian "was not practical. . . . The Egyptian had not made a single important development over his ancestors in any practical thing which would go to make life less arduous. He was always content to live as his forebears had, until some outsider forced him to adopt a new way of life" (1947, p. 150).

The Hyksos brought with them the horse and the chariot, such as were used many centuries earlier in Sumer. Their most significant importation was the short bow made up of several thin layers of wood, or wood and horn, glued together: as far as we know, the earliest version of plywood. From the Hyksos the Egyptians learned to improve the technical efficiency of their arrows, daggers, helmets, shields, and other implements of war, so that an up-to-date arsenal was in readiness for the New Kingdom's world conquests (pp. 158-63).

The New Kingdom is sometimes considered to have lasted from about 1550 to 715 B.C., when the strange Nubian kingdom, from far in the south, near the Fourth Cataract of the Nile, extended its rule over Egypt. But von

Beckerath considers it more correct to terminate it at the end of the Twentieth Dynasty (1080 B.C.). The great period of the New Kingdom covered the Eighteenth and Nineteenth Dynasties (ca. 1550-1198 B.C.). This period, including the years of transition, lasted about half a millennium, comparable in length and brilliance to the Old Kingdom. These two periods above all embody the creative side of the Egyptian nature.

The Eighteenth Dynasty: From the time of Ahmose (1552-1527 B.C.), who expelled the Hyksos, the Tuthmosids of the Eighteenth Dynasty presented a series of sharply delineated rulers. Tuthmosis I advanced on the Nubians and thrust them back almost to the Fourth Cataract. He also started the grandiose development of the temple of Amon at Karnak. His daughter, Hatshepsut (1490-?1469 B.C.) introduced the concept of large-scale, long-term planning. Tuthmosis III, who destroyed much that Hatshepsut had built, erected his festival hall (Akh Menou) at the east end of the Karnak complex: perhaps the ultimate in structural **369** skill attained by Egypt.

The mortuary temple of Queen Hatshepsut in Deir el Bahari shows a mastery in handling space, adaptation to a vast landscape, and great architectural independence. **262 col** Egyptian architecture never again achieved such majestic and at the same time so deft a command of spatial relationships.

Tuthmosis III presented a dramatic contrast to Hatshepsut. He conquered the greater part of western Asia, and under him the bounds of Egypt were extended farther even than under the Ramessides. He achieved world power for Egypt for a longer time than was granted to either Babylon or Assyria.

The dimensions and colossal statues of the mortuary temples of King Amenhotep III (1400-1362 B.C.) foreshadowed the gigantic scale of the Ramessides.

In the temple of Luxor, also dedicated to Amon, the reliefs in the innermost area — like those in Hatshepsut's mortuary temple — satisfied the desire to produce evidence of the divine origin of the monarch. As always in Egypt, reliefs present the art of the period at its most subtle. In the tombs of high Theban officials such as Ramose, they attain an insurpassable delicacy.

After the short interlude of Akhenaten (Amenhotep IV) and his Amarna period (1362-1345 B.C.) the new dynasty opened.

The Nineteenth Dynasty: The Ramessides came from Avaris (now identified with Tanis), which they rebuilt as their capital. They were the last dynasty of world renown. Ramesses II (1290-1224 B.C.) towers over their other kings. As so often, there is difficulty in establishing exact dates. It is known that Ramesses II reigned for sixty-six years, and in recent studies Parker has shown that two different datings are possible for him: 1304-1238 B.C., and 1290-1224 B.C. For historical reasons, von Beckerath accepts the later date: 1290-1224 B.C. (1961, p. 30).

Throughout his long reign he was equally famous as a general and as a fanatical builder. One still finds traces of his buildings everywhere in Egypt. His most **386** colossal work was the completion of the great hypostyle hall at Karnak. Monumental dimensions were the master stroke. But there was no tendency, as in the Old Kingdom, to achieve monumentality by reduction to the barest essentials. Now individual building elements acquired colossal dimensions, as, for example, the columns of the great hypostyle at Karnak. Not only were there colossal statues of Ramesses II from Memphis to Thebes and farther up the Nile to the rock temple of Abu Simbel, but even the reliefs surrounding the great hypostyle at Karnak acquired a gigantic scale. Only when their scale is reduced, as in the figure of the queen, who scarcely reaches the knee of the colossus of Ramesses, **381** does the former Egyptian grace again shine through.

After the death of Ramesses II (1224 B.C.) the curve of Egypt's fate took a rapid downward turn. In the following Twentieth Dynasty (11.98-1080 B.C.) nine more kings bore the name of the great Ramesses, but only one of them, Ramesses III (1195-1164 B.C.) had much character. He was the author of the temple and palace at Medinet Habu, in which the tradition of the New Kingdom **87** lives on in the human proportions of the paintings and the fine web of reliefs that covers the walls.

THE MILLENNIUM-LONG FINALE: The Egyptian culture did not come to an abrupt end. It proved itself stronger than its conquerors. After the fall of the New Kingdom the divided country was ruled by the priest-kings of the sacred city of Amon at Thebes, and by the kingdom of Tanis in the north (Montet, 1952). Libyan and Nubian Pharaohs followed: the Twenty-second and Twenty-third Dynasties at Bubastis. Then came the Nubians (Kushites) of the Twenty-fifth Dynasty. They were educated as Ethiopian kings, but

Egyptian influence was dominant and all took over the culture of the Egyptian ruling class.

Saite period: 664-525 B.C. The most interesting phenomenon of the Late Period was the Twenty-sixth Dynasty, from the delta city of Sais. These rulers, probably of Libyan origin, temporarily gave new life to the finest Egyptian traditions. It is possible to see the great Saite interest in the art of the Old Kingdom and in the portraits of the Middle Kingdom as just a neutral antiquarianism, like the care with which they rebuilt monuments of the Old Kingdom, even creating new entrances to Zoser's tomb beneath the step pyramid. But it was more than this. It should not be confused with the rebirth of antiquity in the Renaissance, or with the nineteenth century's sniffing about for styles in all past periods. The Saite period was engaged in a despairing but most interesting attempt to permeate the present with the past in order to create a new continuity. That the actual situation of Egypt at the time doomed this effort to failure is another matter. The strength was lacking to inaugurate a fourth great period in Egypt.

That this was not simply an epigonic imitation is shown by the bronze animal statuettes made to be placed as votive offerings in the temples, as for example falcons, ibis (the bird of Thoth), or the numerous cat statues dedicated to the goddess Bastet, which enclosed mummies of cats. These form part of the revi- **40** talizing of the animal cult in the Saite period and were standardized products. However, the Egyptian sculptural tradition lived on in them: not so much to express the external appearance of the animal as its characteristic essence. No cat ever had quite the proportions or sat quite so upright as the cats of Bastet, but it is exactly those traits which give them their fascination.

An insight into the art and psychology of the Saite period and the final phase of the Egyptian development is of the greatest interest to us today. This research is just beginning (Bothmer, Muller, and De Meulenaere, 1960).

There was over a century of Persian rule. There was the conquest by Alexander the Great. Then three centuries under the Ptolemies. Finally Egypt became a Roman province.

The most noteworthy feature is the persistence of the religio-cultural structure, which was maintained for almost a millennium after the end of the New Kingdom. Translated into our period this means from the time of

Charlemagne to the nineteenth century: in other words, the entire span of European civilization from the midst of the Dark Ages to the Industrial Revolution.

The Egyptian culture absorbed all conquerors as soon as they came under its spell. Even under foreign rulers such as the Hyksos (Fifteenth and Sixteenth Dynasties) and the Persian rulers (Twenty-seventh Dynasty), the sequence of the Egyptian dynasties was continued — from the First to the Thirtieth Dynasty.

It was the Egyptians' mythopoetic imagination that sustained the great vitality of their civilization. The notion of kingship changed from that of the divine king of the pyramid age to that of the king as an instrument of the favor of the gods in the Late Period. But the tradition of kingship persisted throughout, and with it the king’s direct relations with the gods. Alexander the Great, the Ptolemaic kings, and the Roman emperors up to Domitian all assume the ritual gestures and garments of the Pharaohs and stand before the gods in the manner of the great rulers of Egypt’s prime.

PART II THE EGGSHELLS OF PREHISTORY

The problem of constancy and change undergoes considerable extension during the first high civilizations, which arose in Egypt and Sumer in the course of the fourth millennium B.C.

It no longer only concerns constancy and change within certain phases of culture, **1:passim** as in prehistory, however long they endured. With the advent of the high civilizations the question arises: What prehistoric traditions still live on in Egypt and Sumer? What is changed and what is radically new?

In this volume we shall show how certain prehistoric phenomena persist until the end of Egypt's existence, and in what context changes appear which will be inherited by the Mediterranean civilizations.

A strong cord that was never wholly severed connected the earliest high civilizations with prehistory. Kurt Sethe, who published the Pyramid Texts, opens his *Urgeschichte und älteste Religion der Ägypter* with these words: "It has rightfully been said of the people of Egypt that, unlike other nations, their eggshells always remained with them" (1930, p. 1). Sethe's point was that the Egyptians always clung to their original conceptions and experienced no difficulty in juxtaposing the old with the new and the new with the old.

Perhaps one should go even further: the Egyptians never completely lost the eggshells even of their prehistory. The cord which connected them with their prehistoric development was never entirely severed. Indeed, this continued linkage was at the basis of their nature; it accounts for what is to us largely incomprehensible — the inseparability of the probable and the improbable, logic and illogic, science and mysticism. Similarly the inner bonds between the animate and inanimate worlds, between men, animals, plants, matter, and the cosmos, were never sundered. Mentally this is not difficult to grasp, but emotionally it is a world we cannot enter.

For the Egyptians, the animate had direct relations with the inanimate: the living with the dead.

Their reverence for the animal reflects their reverence for everything imbued with life. This most important primeval tradition stressed a direct communion with the animal world. In other words, the acceptance of the relation between society and natural species, the reverence for the animal,

was maintained, as A. R. Radcliffe-Brown (1952) has found it maintained among primitive peoples today. However, in the first high civilizations, this primeval tradition underwent a special kind of development with the creation of a new world of gods.

Their attitude toward the animal is their strongest link with the prehistoric conception of the oneness of all life. The consequences arising from this are everywhere apparent.

We of today, with our firmly anchored acceptance of the supremacy of man and his dominion over plants and animals, our religion based on the Book of Genesis and our logic based on the Greeks, find Egyptian ideas as illogical as they are untenable: such as the identification of the god of creation (Atum) with a lizard or the identification of the sun-god (Ra) with a dung beetle. That this identification of the highest gods with the most insignificant creatures was possible at all betokens an imagination rooted in a world closed to us, a world in which an unbroken cord linked creature with creature, expressed not only as a pictured representation but as a sacred reality. Only if we understand the religious conviction that no discrimination was conceivable within the realm of animate matter can we comprehend that an insignificant insect and the cosmic godhead could be one and the same.

The animal and the symbol held dominion before the advent of the organized world of gods. Veneration of the animal finally vanished with the ascendancy of the Greek and later the Christian *Weltanschauung.*

In the earliest historic periods, animals were not differentiated as high and low, noble and base. Then, animals which in later times were almost ignored received godlike veneration or were theologically identified with gods as their earthly manifestations.

Originally the four male gods of the Ogdoad created at the cult center of Hermopolis were frogs and the four female goddesses were serpents.

Centipedes had their sanctuary.

Scorpions were the companions of Isis, who appears herself “in the form of a scorpion-goddess” (Kees, 1941, p. 59). Selkhit, the enigmatic goddess of death, who from the Mountain of the West takes the setting sun into her arms, is presented as a headless female bust with arms similar to those of a scorpion, and **1:217** at the beginning of the New Kingdom she is shown entirely as a scorpion (Jéquier, 1946, pp. 240-41).

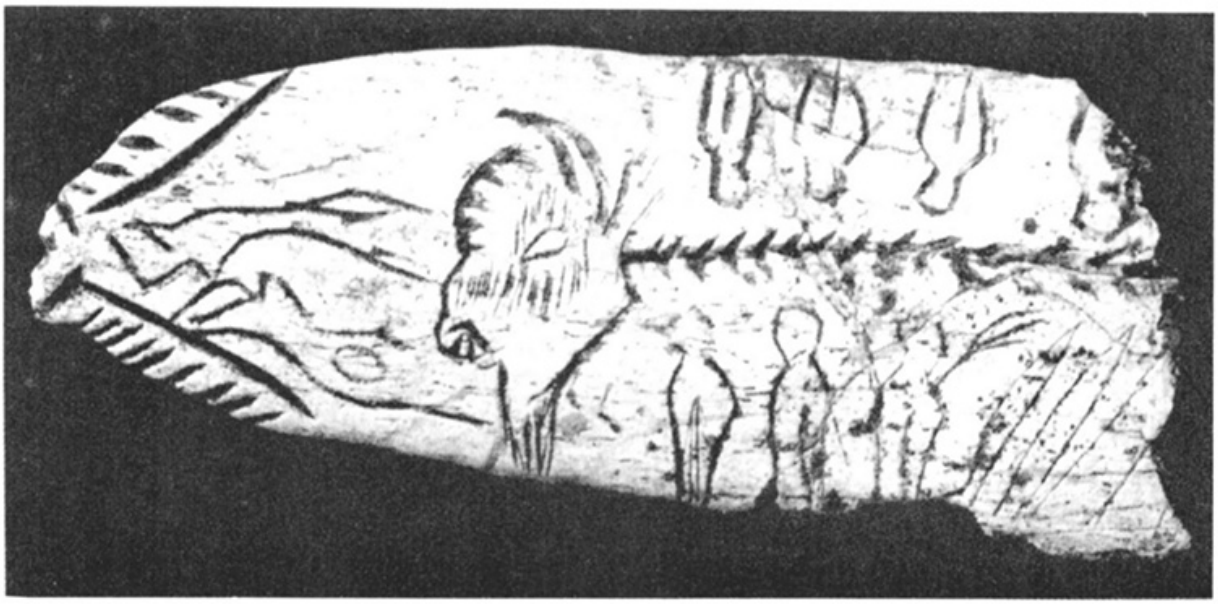
The black dung beetle (scarab), which ran everywhere over the sands of the desert then as it does now, pushing a ball of dung before it, was Khepri, the self-creator, identified with the morning sun. The ball of dung was the ball of **134** the sun raised aloft between his forelegs, for the scarab was "the earthly manifestation of the formless [highest] god Atum" and was, possibly from the very beginning, connected with the "primeval mount" at Heliopolis, "the first firm spot of the world beginning which separated itself from the chaos of the primeval ocean Nun" (Kees, 1941, p. 215).

We are immediately confronted by the question: What forms did the cult of the animal go through during the first high civilizations? It was in the veneration of individual animals that the prehistoric tradition lived on most forcefully. Later the animal cult underwent a change: the animal acquired divinity. A specially selected animal became the incarnation of an anthropomorphic god, and thus the god himself. The Egyptian development, with its more intensive cult of the dead, presents better evidence of this transition than that of Sumer.

Sumer, on the other hand, offers us a better insight into the continuance of prehistoric imagination in the position occupied by hybrids. Hybrids, composite **1:485 ff** creatures, arose in primeval times from man's longing to find a form that would make contact with those invisible powers with which his fate was intertwined. In Sumer, the inexhaustible varieties of prehistoric hybrid forms were reduced to a few types. Animal hybrids incorporated by accumulation the powers of the different animals which composed them, such as the bird Imdugud, which had **56** the body of an eagle and the head of a lioness, and animal-human hybrids like **63** the bull-man.

The continuance of prehistory is also manifested by the stress laid on fertility symbols. In this context, we shall concern ourselves with the female figure as a **74 ff** fertility symbol and with the transformation of primeval idols ("Venus figurines") into the Great Mother and goddess, as well as the transformation of an animal into a cosmic and anthropomorphic godhead (cow > Hathor). A male **82 ff** fertility symbol, the Egyptian ithyphallic god Min, also reaches back into prehistory.

89 ff Finally, we shall touch on the prehistoric connections of one of the most complicated theological notions: the Ka.



MAGDALENIAN BONE ENGRAVING: *Burial of bison accompanied by human mourners. Chancelade* (*Dordogne*)

THE ANIMAL AND THE ARCHAIC HIGH CIVILIZATIONS

We have designated the role the animal filled in the ritual life of prehistory as sacred, but sacred in the sense used by primitive peoples. They do not separate the sacred from daily life. They do not transfer it to the celestial sphere. For them, sacred and profane are bound together: both spheres are sacred. As mentioned earlier, Mircea Eliade calls this conception the “ambivalence du sacré" **1:278** (1949; tr. 1958, p. 26). The animal was simultaneously an object of veneration, and food. Though killed, it still possessed a fearsome power. Its spirit lived on. Every precaution had to be taken not to arouse its anger and revenge. It was essential to do everything possible to assure its re-entry into existence. This relation with the animal continues throughout the entire primeval period and, though rapidly vanishing, persists among primitive peoples today.

A ritual attitude toward the animal was so deeply embedded in the human spirit that it survived throughout the first high civilizations, especially in Egypt. The veneration of the animal and the belief in its soul persisted, though the nature of such belief changed with changing conditions.

In this context a distinction must be made between the individual animal as object of veneration and the animal as a divinity. The individually venerated animal is any animal of its kind. Its existence does not end with its death. The dead animal and the dead man both compel awe and veneration, the animal possibly more than the man. Magdalenian bone engravings exist which show solemnly festive animal burials, but none has yet been found depicting a human burial. **left**

The divine animal belongs to the first high civilizations. In Egypt it is a carefully selected example of its species, bearing signs, known only to the learned few, which indicate that it is a personal incarnation of the god — or that, even more, so long as it lives, it is the god himself. The concept of the divine animal is a re-reflecting process. What the theologians present as a divinity is projected back into the being of a specially selected animal.

Transition from sacred animal to deity

At the opening of the historic period there are certain indications of the transition from the animal considered as sacred to the animal considered as god. Animals entered the ambit of the newly emerging world of gods either as the living incarnation of a deity (the bull Apis, the ram Khnum) or as the image of the god in animal form (Thoth as a baboon or as an ibis). **37**

During the period of transition from the prehistoric to the historic periods in Egypt, one is aware, when comparing representations of human figures with **1:455** those of animals, of the strong wind of prehistory with its millenniums of tradition. Incontestably the animal retains its primacy. The human figures, when they exist, are difficult to recognize, just as in earlier periods of prehistory.

Certainly a few exceptions occur in the Early Period, such as a half life-size limestone head (Ashmolean Museum) from Hierakonpolis, whose meaning is far from clear. Some unpretentious 4- to 8-centimeter faience figurines, **36** almost malachite green, are more informative. They were found in the necropolis at Abydos where Flinders Petrie had earlier unearthed small animal and human statuettes of the same material (1903, pls. 5-6). At first glance one is obliged to ask oneself whether these small humanlike figures can in fact represent human beings, so close are their posture and appearance to those of an animal. On closer inspection a human, though masklike, divided forehead and nose become clearly recognizable. The largest male figurine has the long-drawn-out head that we recognize from the Magdalenian period. It is stretched so far forward that it forms one continuous line with the back, like that of a hyena. The arms rest upon the ground like posts, and are reminiscent of hippopotamus sculptures from the same period (Museum of Fine Arts, Boston). The fingers are depicted by lines engraved upon the pedestal: an ancient prehistoric tradition. All these figurines come from the time of the unification of the two kingdoms of Egypt, or perhaps somewhat earlier.

The supremacy of the animal also appears in the selection of topics. Animals play a far greater role in the Predynastic period than humans. The pictures on the plaster wall at Hierakonpolis, dating from late-Gerzean times — the last phase of prehistory — are predominantly of animals, though some actively **360** handled human figures already appear. Animals also predominate in the rock engravings of the Wady Hammamat, the desert

valley which is the closest link between the Red Sea and the Nile. These are now believed to be of the same period.

Several of the ceremonial cosmetic palettes of the First Dynasty have no figures of humans. One such (Ashmolean Museum) was found in the temple of Hierakonpolis. It shows a tumult of wild animals of the greatest vitality. As in prehistory they are disposed freely in space. Since no care was taken to organize them in relation to the neighboring horizontals and verticals, it is still customary to speak of their chaotic lack of grouping and to the absence of spatial coherence. This approach will in time become just as inadmissible as the criticism of prehistoric works according to the rules of visual perspective. Actually this free disposition is one of the last expressions of the prehistoric space conception.

Other small and insignificant reproductions of animals give a more intimate expression of popular beliefs. These objects, measuring only a few centimeters, were laid in graves or used as amulets to afford protection or confer strength. The most varied species are represented: mice, hares, cattle, antelope, crocodiles, lions, etc. In the environs of the oldest temple at Abydos innumerable such miniature animals were found, including sacrificial cattle, hooded falcons, baboons, and frogs.

Animals were honored for special attributes they were assumed to possess. The frog—like the snake—being a chthonic creature seemingly emerging from the earth, was a symbol of nascent and ever-renewed life. Its great fertility bound it to the goddess of birth, and possibly also to the fertility-god Min. When placed in a grave it gave assurance of life in the hereafter.

The eight godheads—the four divine couples—of Hermopolis represented primordial powers, in contrast to the Heliopolitan sun-based religion. These were the powers that existed before world order was established: the primeval ocean, the twilight, endless space, nothingness (Bonnet, 1952, p. 5). As symbols of their origin, these chthonic deities bore the heads of frogs and snakes. As stated earlier, frogs and snakes belonged to the extensive category of creatures honored for their protective powers. They were in no way gods.

The transition from sacred animal to deity was contemporaneous with the establishment of an anthropomorphic world of gods at the beginning of the organization of empire states. In addition to Hermopolis with its eight gods incorporating the chthonic powers, there came Heliopolis, an ancient

center now risen to eminence with the sun-god, Atum-Ra, as its supreme deity. The newly founded capital of Memphis made a third center, whose chief god was Ptah, "Lord of the mighty word." He achieved creation by the power of the word, in contrast to spitting or masturbating like the god Atum at Heliopolis. Ptah, like the simultaneously instituted Pharaoh, operated by commands issuing from the heart, the seat of ideas, and the tongue, the seat of speech. Ptah, the intellectual, was a priestly invention *par excellence.* He was depicted as a mummified human **45** figure, but his earthly incarnation was the bull Apis.

The god Thoth was somewhat different. One of the most pluralistic of all the gods—inventor of the art of writing and himself an author, protector of scribes, founder of astronomy and all intellectual pursuits—Thoth was a typical Late product. Even he, however, bears traces of the transition from sacred animal into animal as deity. Possibly because his origins as a sacred baboon became lost in the mists of prehistory, Thoth was finally elevated to the leadership of the eight deities of Hermopolis. He is also sometimes shown in the form of an ibis (probably originating from the Nile delta). His appearance as a baboon establishes the moment when the animal rose to the majesty of a deity. How this transition took place and what had been the earlier attributes of the baboon we do not know. But numerous malachite-green faience figurines of baboons found in Abydos, Hierakonpolis, and other places can be dated from the prehistoric and protohistoric periods.

FAIENCE FIGURINES *showing men in animal-like postures. Early First Dynasty*

The 52-centimetcr alabaster figure of the god Thoth in the form of a baboon **right** (Staatliche Museen, Berlin) marks the culmination of the transition. God is present in animal form. The pediment of the statue is inscribed with the barely legible name of King Narmer, who had it made as a votive temple offering. The baboon's posture is similar to that of the little faience human figurines. Traces of color show that it, too, was painted blue-green. The form is still blocklike, abstract. The arms, planted on the ground between the massive thighs, spring from the shoulders in one unwavering curve. With the new dimensions a new monumentality has arisen. The knees project with imposing strength yet are firmly integrated with the block. One senses latent vigor and highly tensed nerves, just as one does in the much later lion's head from the pyramid temple of Ne-user-ra, which shows the same masterly use of sculptural planes. **4**

THE GOD THOTH *in the form of a baboon, often called the Baboon of Narmer. Egypt's earliest sculptural masterpiece. First Dynasty*

MUMMIFIED GAZELLE *surrounded by vases. Heliopolis, Predynastic period*

MUMMIFIED GAZELLE. *Esna (Upper Egypt*), *Saite period*

We quote Hedwig Fechheimer's felicitous description of this figure when she first published it: "In this unified form, built up of mighty projecting and colliding planes, the eye of the observer is everywhere conscious of the primordial cubic stone" (1927, p. 88). Scharff considered this alabaster baboon to be the first "classic Egyptian sculpture" (1939, p. 450) and thought it strange that animal sculpture should be so much in advance of representations of the human figure in stone: "The reason for the great superiority of animal sculpture in the Early Period must sometime be studied more exactly" (ibid., footnote).

These reasons must be sought in the prehistoric development during which means of representing the animal, but never the human, were brought to the highest perfection. Several centuries were to pass in Egypt before the human figure would become an object of artistic concern. It was only in the Fourth **107 ff** Dynasty that the sculptural beauty of the human form was first discovered.

Thus it is understandable that in the great revolutionary period of the unification of the two kingdoms, Egypt's first monumental and datable sculpture should be the deity appearing in the form of an animal.

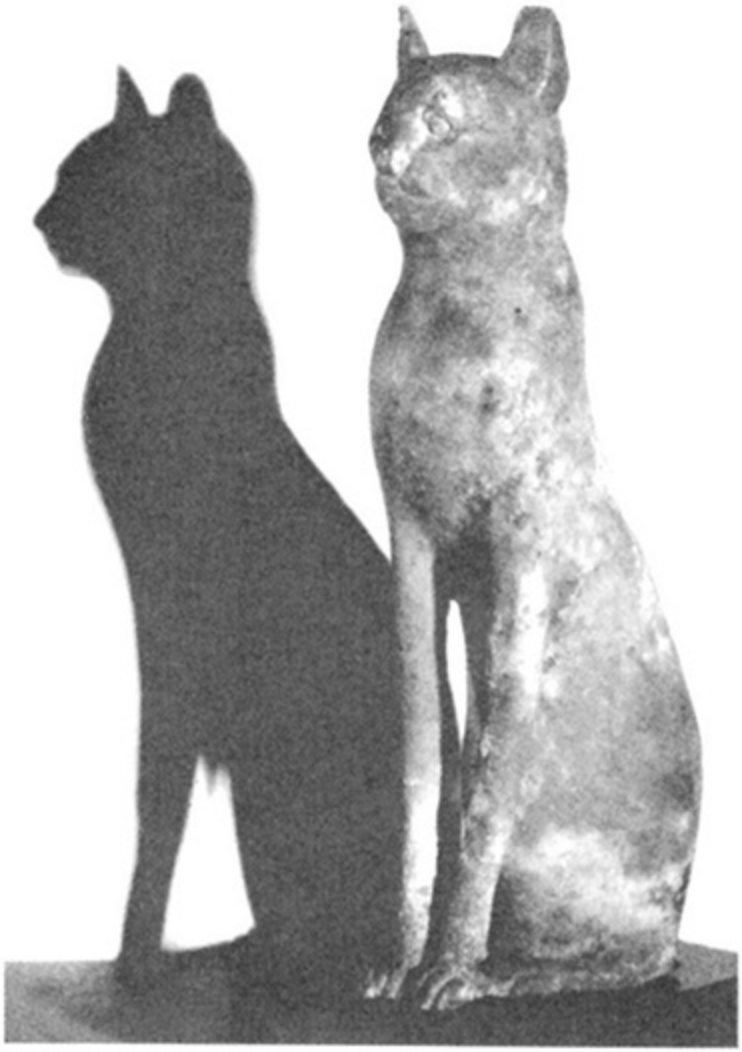
MUMMIFIED DOG *surrounded by animal bones, emerging from debris above the unfinished pyramid. Saqqara, Saite period*

Veneration of the individual animal

The earliest tokens of animal veneration are some bear skulls and thighbones **1:286 ff** found in stone chests in the Drachenloch, a small cavern in the eastern Swiss Alps, 2445 meters high. They stem from the early Mousterian period, about 50,000 B.C. Their reverent manner of preservation was to make possible the animals' re-entry into life.

The animal burials from the Magdalenian era raise the question whether they demonstrated veneration of the animal in addition to providing for his re-entry into life.

The same question arises in the early animal cults of Egypt. Few real facts are known about the Predynastic period. But in 1950, when preparing the foundations for a new building in Heliopolis, today a suburb of Cairo, F. Debono came upon a Predynastic necropolis with seventy-three graves. These he designated as "probably parallel" to Nagadah II and the Merimdeh period. "The necropolis in question is situated at the extreme north of the racecourse of modern Heliopolis. The dead were covered with mats, the skins of animals" (1950, unpublished Mss.).



BRONZE CAT *containing mummy of a cat. Twenty-second Dynasty or later*

Six gazelle graves were found: “They were buried with the same care, and often greater care, than the humans. Remains of mats were existing upon the bodies of certain gazelles.” They were richly accompanied by grave-utensils. “In one tomb, the gazelle was almost entirely surrounded by vases. This is the **38** first time animals have been found buried in a human cemetery” (ibid.).

In Saqqara, a necropolis used from the time of the First Dynasty, and in nearby Abusir, the favorite necropolis of the Fifth Dynasty, were revealed “enormous pits, winding underground passages, and deep wells enclosing thousands of cattle, sheep, dogs, birds, etc.” (Gaillard and Daressy, 1.905, preface).

The veneration of the individual animal ended only with the end of Egypt itself. It extended even into the Roman Empire. Also, the reserving of a section of the human cemetery was continued, as at Heliopolis: "One knows in fact that in practically every necropolis one finds beside the [human] tombs a section reserved for the burial of animals" (ibid.).

The climax of the animal cult occurred in the Saite period. Embalming, which by preserving the earthly body would guarantee a further existence, became the usual procedure for animals. A mummified gazelle from Esna, Upper Egypt, **38** shows the careful workmanship. It is wrapped first in cloth bands impregnated with resinous matter and then in papyrus stems. The horns and ears are also carefully enwrapped.

Mummified animals are so numerous that the excavators simply leave them among the rubbish. One almost stumbles over them. During the excavation of the Third Dynasty unfinished pyramid at Saqqara, I saw a mummified dog of the **39** Saite period emerge surprisingly from the debris.

To this late period of animal veneration belong the numerous bronze cat statuettes, which, aside from details of ornament, are much alike. They were standardized products, almost mass produced. The sensitive modeling of the **left** body, with its slender limbs compressed into the mass and its attentive head, makes each of the many examples appear like a rare original. Sculpturally these animal statuettes are among the finest products of the Late Period. Most come from the animal necropolis of the city of Bubastis, the Nile delta capital of the Twenty-second Dynasty. Its local deity was Bastet, who was sometimes represented with a cat's head, similar to the lioness-headed Sekhmet of Memphis. **71**

The striking proliferation of the animal cult in the Late Period was due chiefly to the loosening of the priest-controlled religious system as the state's independent existence declined. As "the creative strength of theology diminished, and consequently the gap between popular beliefs and theology became insurpassable, the animal cults, with other elements of popular beliefs, became the sole focus of religious life. From their incorporation in the popular beliefs we can understand their tenacious hold throughout all historic changes, so that they live through the most widespread systems and most powerful gods . . . they remain alive in the minds of the people and only disappear when they do" (Otto, 1938, p. 58).

This attitude toward the animal was not only an Egyptian popular belief which could not be dislodged, it was also the oldest tradition of mankind

that lived on. The Egyptian theology, which was so clever in adaptation, had for outward and inward reasons to allow animals and anthropomorphic gods to mingle and blend with one another. Only the later religious proclamation of the supremacy of man caused the final overthrow of the animal.

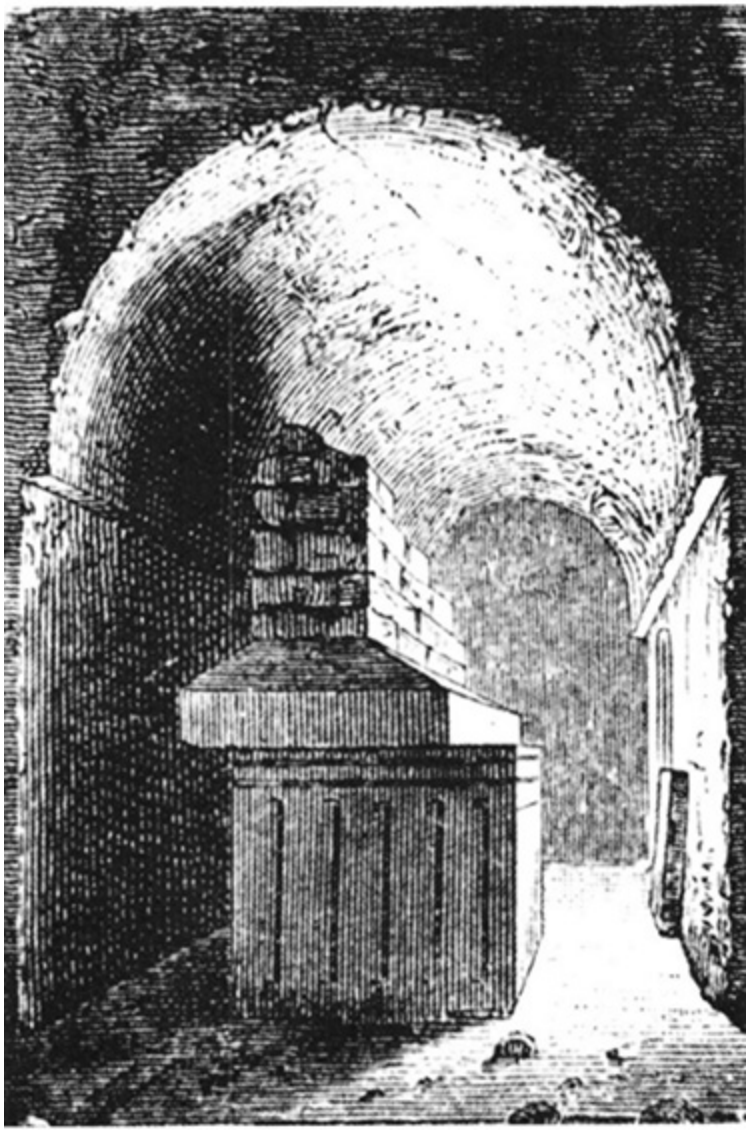
The animal as deity

The adoration of the animal in primeval times passed through the millstones of theology and was assimilated into the anthropomorphic process. As a result, certain selected animals became divine and incarnations of the highest deities. Each animal during its lifetime was the god himself and enjoyed the same veneration. The god took on its form. A sacred awe protected it from slaughter. During the long period of the cult of the bull Apis, scholars have found only two mentions of his slaughter. Herodotus recounts (III, 29, 64; tr. Powell, pp. 211, 229) that the Persian king, Cambyses, who killed the sacred animal, was terribly punished by the affronted deity — he fell into madness and suffered a painful death; a similar fate befell another evildoer who had eaten of the sacred flesh (Hopfner, 1913, pp. 85-86). However, Gardiner considers that the first is "more than improbable by the evidence from the Serapeum," where a bull sarcophagus is said "by its inscriptions to have been dedicated by the king himself" (1961, p. 364).

It is the destiny of all high civilizations to be ever in danger of overspecialization. Only the fields vary in which this occurs. In Egypt, religion became the realm of overspecialization. Society was partitioned into professional organizations charged with the selection and care of the divine animals. In the case of the most famous of these, the bull Apis, twenty-nine different signs of his divinity had to be noted by specially trained connoisseurs. Other specialists were assigned to act as his grooms, others to deck him in festal attire, and there were special members of the priesthood whose task was to embalm him after death. Specialists for apes, cats, jackals, vultures, and many other animals were formed into separate professional organizations (ibid., p. 21). Thus the divinity of the animal resulted in a ritual bureaucracy covering every stage of its existence.

Apart from the few selected animals which were proclaimed to be direct incarnations of deities, others enjoyed the position of sacred and inviolate temple animals (Wiedemann, 1912, pp. 22 ff.). These were not incarnations of gods and therefore not divine, but they could be neither slaughtered nor offered in sacrifice. "Such an act was considered worthy of death" (Hopfner, 1913, p. 22). Nor could they be allowed to putrefy: they were embalmed and buried in mass graves.

The incarnations of gods in Egypt ranged from the lion and the crocodile to the shrewmouse, but the main cults were confined to domestic animals, understandably among an agricultural people. The bull was no longer the wild bull, the ram no longer the wild ram who, with his enormous curving horns, had appeared **454** on the early ceramics of Iran and cylinder seals of Sumer to give strength to the deceased. But for the main cults the same animals — bull and ram — were still chosen because of their powers of procreation and their fecundity. In the forefront of the priestly animal cult stood the bull: Apis, the white **left** bull of Memphis, the black Mnevis bull of Heliopolis, and other bulls of lesser renown.**458**



SARCOPHAGUS OF APIS *in the Serapeum at Saqqara. Nineteenth Dynasty. After Mariette*

RELIEF OF APIS, *the divine bull, standing on a pedestal before a worshiping scribe. From a Nineteenth Dynasty sarcophagus. Serapeum, Saqqara. From Mariette*

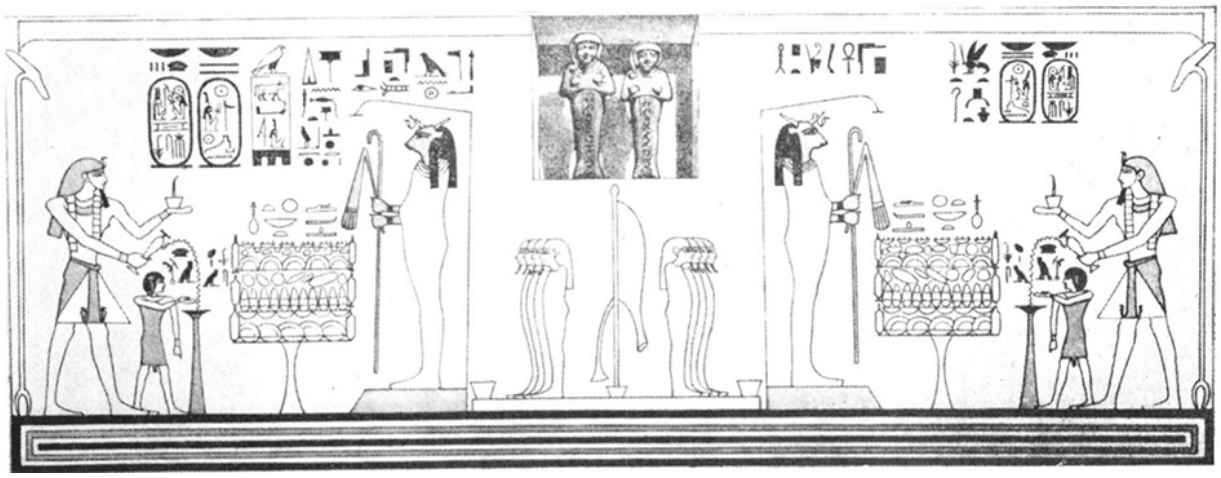
Apis: a re-reflecting process

The animal as a divinity represents a re-reflecting process linking the newly created anthropomorphic gods with the primeval animal cults and permitting an animal to assume the being of a deity whom it will embody throughout its lifetime. The cult of the bull Apis, holding sway over a longer period than the Christian Era, shows how strongly the animal continued as the primal source of religion. Veneration of the bull, which arose in prehistoric times — witness the **1:408 ff** colossal bulls painted in

the cave of Lascaux — existed in Predynastic Egypt. Various nomes, or provinces, held the bull as sacred and displayed his symbol on their standards. Even in the First Dynasty, an ostracon shows a drawing of the bull Apis, with his characteristic markings (Otto, 1938, p. 11). The Apis bull was driven onto the sown lands to make them yield, in a ceremony called the “Running of the Apis." This ritual is depicted upon a porphyry bowl of Horus Aha in an early First Dynasty inscription (Simpson, 1957, pp. 139-42).

In Egypt the bull was venerated for its powers of procreation. This is different from the function of the Sumerian bull-man, who was primarily the protector of **63** the herds.

The monumental development of the Apis cult took place at the time of the New Kingdom and continued until the late Ptolemaic period, and it required numerous buildings. The cult’s burial place, the Serapeum, at Saqqara, lay in the midst of the oldest necropolis of the Egyptian kings. It stands witness to the most elaborate development of the animal cult.



RELIEF OF APIS *in the mummified form of the god Ptah with a bull’s head; before him Ramesses II and his son. Serapeum, Saqqara. From Mariette*

Before Auguste Mariette discovered the entrance to the catacombs of the Apis graves in 1851 his eye had fallen upon a small sphinx that lay three-quarters buried in the sand (today in the Louvre). He followed the description of Strabo and unerringly deduced that this sphinx formed the beginning of an alley which led down to the Serapeum. The way to the entrance doors was also marked by pylons. Mariette then found himself in a long passage; right and left **43** stood sarcophagi of bulls within high barrel

vaults hewn directly into the rock (1855). Tombs were found dating from the Eighteenth Dynasty, from the time of Amenhotep III, founder of the temple of Luxor, and his successors. In the Nineteenth Dynasty, under Ramesses II (1290-1224 B.C.), these burials achieved an astonishing splendor.

Almost all the sarcophagi were plundered and empty when Mariette found them. Only one tomb was untouched. Here lay an Apis mummy bearing a pectoral of Ramesses II (now in the Louvre). The atmosphere of holiness which clung to this mortuary city was so strong that the son of Ramesses II, Kha-em-Wast, high priest of Ptah in Memphis, was himself buried in the same vault.

The sarcophagi of the mummified Apis bulls are made of syenite, basalt, or limestone. They are unusually large: 3 to 4 meters high, 4 to 5 meters long, and more than 60 tons in weight. On the upper row of one of the reliefs the **44** striding Apis bull stands upon a pedestal with the disk of the sun and the uraeus between his horns. Before him is a lotus flower. A royal scribe, in a position of adoration, stands by an offering table. Above the Apis hovers the Udja eye of Horus, with the body of a vulture. In a lower row the adoring scribe appears once more with a companion.

Upon another sarcophagus, Apis has the mummified form of the god Ptah **45** with a bull's head. Before him the Pharaoh Ramesses II and his son Kha-em-Wast are making offerings.

What was the life of the Apis bull? Some information has recently come to light. Within the walls of the temple of Ptah in Memphis the architectural historian Alexander Badawy discovered the ground plan of the luxurious palace in which the Apis bull lived out his life and in which he was embalmed. In 1954, John Dimick, of the University Museum of Philadelphia, uncovered the bull's living quarters and the mighty alabaster table which served for his embalming (1958, p. 183). A cartouche of Ramesses II was found in the sanctuary, and it was possible to ascertain that a complete renovation had been undertaken in the fifth century B.C., a further indication of the undiminished veneration of Apis in the Late Period.

The white bull Apis, who remained a deity throughout his life, presents the best example of the re-reflecting process. The deification of each specimen of this animal occurred as a result of the belief that certain distinctive markings proved him to be an incarnation of the god Ptah himself.

Apis was the outcome of priestly speculation and popular beliefs (Otto, 1938, pp. 23-24). Through the interconnection of Ptah and Apis the popularity of the animal was brought into the service of a theologically higher animal-divinity (p. 25). "This was not simply a cunning artistic stroke of the priesthood, but an outcome of the Egyptian mode of thinking" (p. 32).

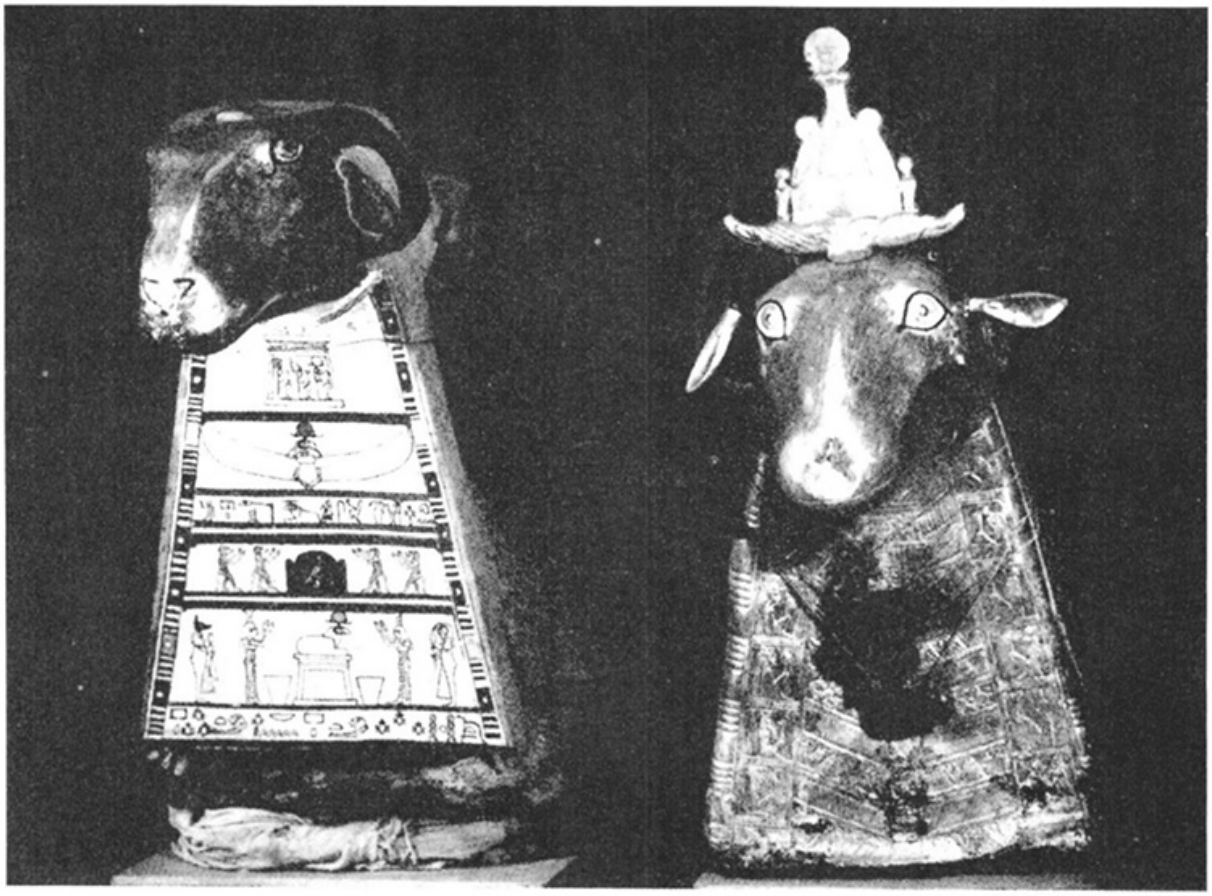
The magic arising from the recognition of Apis as god upon earth appeared in the continual extension of his powers. Besides being the incarnation of Ptah, Apis gradually absorbed other of the highest gods. He incarnated the primal creator, Atum, and became Apis-Atum, and finally he absorbed the god of vegetation and death, Osiris: "The most fruitful union of Apis was with Osiris . . . between these two fertility-gods there was a natural bond of relationship" (p. 27). As a consequence of this union, Apis also took on the character of a god of death.

When the Greeks took over the Apis faith a new god arose — Serapis. "This name is the Grecian form of the Egyptian Osiris-Apis. . . . This god, revered alike by Greeks and Egyptians, was used by Ptolemy I ... to create a Serapis cult which bound both peoples together in the new capital of Alexandria" (p. 2.9).

During the last phases of Egyptian history, this cult came more and more into the center of religion. Thus it was understandable that the Ptolemies continued the Apis burials in the Serapeum.

The ram cult

The ram cult was also widespread and prominent. Its most southerly sanctuary was the island of Elephantine, encircled by the rapids of the First Cataract. There the ram-headed god Khnum was "Lord of the dark waters" — i.e., the cataract — and thus guardian of the source of the Nile (Badawy, 1937, p. 22). That rams were honored as his incarnation is clear from the closely packed rows, **49** in the necropolis, of granite sarcophagi containing mummified rams. The **above** mummies bore gilded horns and upon their breasts lay painted plaques indicating the relation of the deified ram to the female ruler of the locality.



MUMMIFIED RAM *incarnating the god Khnum, faced with a painted plaque painted with cult scenes. Elephantine (Upper Egypt*)

In the New Kingdom Khnum was certainly also a creator-god. In the Birth Room of the enclosed sanctuary of the temple of Luxor is a relief which depicts **right** a ram-headed, male-bodied god, modeling upon a potter's wheel the newborn Amenhotep III and his Ka.

Khnum was also associated with the highest god of the New Kingdom and became absorbed by him. The visitor to the religious center of Thebes is constantly reminded of the important role of the ram as the personification of the state-god Amon-Ra. The long avenue leading to the great temple of Amon-Ra **51** at Karnak is flanked by dense rows of ram-sphinxes: their heads bear the flat spiral horns of the domestic sheep and their bodies are those of lions. The sacred barge which carried the deified statue of Amon-Ra bore golden rams' heads upon its prow and stern. Upon the bark of the sun, the god Ra at midnight **362** took on the form of a ram seated within the solar disk.

KHNUM AS CREATOR-GOD *fashioning upon a potter's wheel Amenhotep III and his Ka. From an Eighteenth Dynasty relief in the Birth Room, temple of Euxor. Drawing by Schwaller de Eubicz*

RAM SARCOPHAGI. *Necropolis, Elephantine (Upper Egypt*)

Even the foreign conquerors of Egypt came under the disquieting spell of the powers that emanated from the animal cults — the Persians as well as the Greeks. Not only the Ptolemaic kings treated the divine animals with great honor and granted tax exemption to the districts protected by them (Hopfner, 1913, p. 95), but Alexander the Great represented himself as the son of Amon-Ra and struck coins on which he was represented with the horns of a ram (p. 91).

The ram was an early symbol of fecundity because of its extraordinary generative powers: “That the sacred ram within the temple is an embodiment of the god of generative power is apparent from the animal at Menes [one of the great cult centers] where the women shed their garments before him and even had sexual intercourse with him," as Theodor Hopfner recounts on the authority of various classical writers (p. 95).

Animals and marks of distinction

The continuity of the primeval veneration of the animal can frequently be sensed in the first high civilizations. Animal attributes were a sign of dignity and power among the highest of the social hierarchy. The Pharaoh had a bull's tail fastened to his girdle on occasions of high festival: "The *sed-heb* or Tail festival, when the king was invested with the tail, was one of the most important of the royal ceremonies. A sacred dance, performed by the Pharaoh ... is often represented as taking place in a temple before Min, the god of human generation" (Murray, 1952, p. 26).

The Egyptian priests wore a panther skin when performing their sacred functions. On Mesopotamian cylinder seals, the priests of Enki, god of the deep waters, were covered with the form of a fish, the head serving as a kind of tiara. These were all relics of prehistory, which sought to ennoble a different kind of dignity through adoption of an animal *Gestalt,*

In Mesopotamia the horned crown was maintained with especial constancy as the sign of a god. In prehistory, a horn was a symbol of strength and fertility, **1:473** as it first appears in the raised left hand of the Venus of Laussel. The horned **69** crown continued to be a symbol of the anthropomorphic gods of Mesopotamia throughout the entire changeful history of that land. Horns were also placed **218** at the corners of the high temple of the ziggurat as signs that this was the abode of the deity.

Why it was Mesopotamia and not Egypt that held the horn in such high esteem may be found in a very early tradition. A striking characteristic of the ceramics of the fourth millennium from Mesopotamia (Samarra) and Iran (Susa, Sialk, Tepe Musyan) is the dominance of the animal. All emphasis was **454** placed upon the horns, the body sometimes being almost entirely suppressed. Horns, such as those of the ibex, which frequently recur, were not simply fertility **457** symbols. They also were thought to possess the secret power of renewing life. "The position of a deity in the Babylonian pantheon was shown by the number of horns worn. The great gods and goddesses had seven horns" (ibid., p. 25).

SPHINX REPRESENTING AMON-RA, *with ram's head and lion's body, protecting the king between his paws. From the western alley of sphinxes, Karnak*

The bison held a prominent position in the mythology of both archaic civilizations, and it is easy to understand that the bison horn would be brought into the anthropomorphic world of gods as a symbol of especial dignity.

The fading of the animal cult

In Egypt one of the longest chapters of the history of mankind was finally brought to a close: the veneration of the animal. It gradually diminished during the late days of Egypt, after a last hectic flicker during the Saite period (664-525 B.C.), regarding which the attitude of Greek sources differs from that of later Roman ones.

Herodotus, who visited Egypt in the fifth century B.C., thus in the aftermath of the Saite period, grants considerable space to an objective view of animal veneration there. And even Plutarch, in the first century A.D., sees the animal cults as the "outcome of the most deep-going philosophical speculation" (Hopfner, 1913, p. 4). In a comprehensive work on the animal cults of ancient Egypt, Hopfner gives a list of the more important passages on the subject in classical writings, from Herodotus to Aelian, around A.D. 200 (pp. 10-11, 187-90). From Hopfner's list one can note how the Roman attitude began to alter around the beginning of the Christian Era. The jurist Cicero and the naturalist Pliny the Elder treat animal cults either with harshness or with scorn.

The decisive attack came from the Judaeo-Christian dogmatists. In the words of the Jewish philosopher Philo of Alexandria (died ca. A.D. 50): "Can anything be more ridiculous than this cult? Naturally strangers, coming to Egypt for the first time, must laugh themselves sick" (ibid., p. 4).

Condemnation followed from clerical writers as well as from the fathers of the church, such as John Chrysostom (fourth century A.D.), who saw the animal cults as mere stupidity. All this opposition was essential from the standpoint of Christian dogma, since the animal cults, as part of the inseparable oneness of the world, stood in opposition to the transcendent spiritual conception of God.

Christian dogma is dedicated to a universal process: the extraction of man from an all-encompassing oneness. Contempt for the animal was based on the ever stronger conviction of the pre-eminence of man. The first signs of this appeared with the anthropomorphization of the universe.

HYBRID FORMS: PREHISTORY AND THE HIGH CIVILIZATIONS

The indeterminate, all-pervasive primeval longing for contact with invisible powers found an echo in the new conditions of the archaic high civilizations. It appeared most directly in ceaselessly changing hybrid forms with human bodies and animal heads.

The reason why, in primeval times, hybrid creatures had a human body and an animal head can be easily understood. Man thus took on the animal's superiority — its strength and its impenetrable mystery. These human-animal creatures reach far back into the early Aurignacian period, to the bird-headed **1:487** female idol traced in the clay of the cavern of Pech-Merle.

The greater strength of the animal should afford a better contact with the invisible powers. An endeavor to make sharp distinctions between man and animal in these impenetrable religious desires can lead nowhere. Intangibility was the essence of the prehistoric hybrid.

Through a combination of the special characteristics of various animals, even greater power could be attained. This was believed from the earliest beginnings, when man, using different colored clays, attempted to depict upon smooth rock walls the outlines of strange monsters. One need but recall the great serpent, **1:308** three meters long, with the head of a beast of prey and gigantic fangs, drawn in the cavern of La Baume-Latrone in southern France.

Also from Aurignacian times is a demonic thing, a large animal-like head **1:181 ff** from La Ferrassie (Dordogne), composed of so many separate features that it can be attributed to no existing animal species.

Even more fantastic are the minglings of parts of various animal bodies and heads into one composite creature, such as are found in the almost inaccessible sanctuary of the cavern of Pech-Merle. Here is a medley of a rhinoceros, a **1:322** lioness, and three gazelles, whose bodies cannot be distinguished from one another.

These representations of composite bodies must have continued through thousands of years. A seal of the third millennium, from the Uruk-Jemdet

Nasr period, shows three wild goats which share the same body; one has its head **below** lowered and another is looking backward.

COMPOSITE FIGURE: *Three wild goats sharing the same body. Impression from a steatite stamp seal. Early third millennium*

Hybrids in Sumer

In the period of the creation of the anthropomorphic pantheon, man-animal hybrids appeared in Sumer. They played a greater role there in the earliest phase than in Egypt. This was due both to the earlier onset of Sumerian civilization and to the longer continuance there than in contemporaneous Egypt of a pictorial imagery of the prehistoric world.

When with difficulty one penetrates the remote world of the Sumerian seals, one finds in the earliest specimens animals, always animals, covering the surfaces with symbolic meaning. Very few human figures appear, usually indeterminate **65** in meaning and placed in relation to the animals. In the Third Early Dynastic period combat scenes multiply, between animal and animal and man and animal. At this time seated gods also appear upon cylinder seals, recognizable by their double-horned headgear. But these gods bear grotesque animal or bird heads, and figures of another type, whose gigantic eye sockets occupy **65** almost the whole of their heads, are

no less fantastic. They are hybrids, as indeterminate as any in prehistory. They are intermediaries like the bird-headed **1:177** female figurines from Ur.

In the hybrid figures of prehistory one draws near to the core of religious longing. In the high civilizations they bridge the way to the anthropomorphic gods. They were transitional phenomena.

In contrast to prehistory, the archaic high civilizations limited themselves to only two types of hybrids: the composite animal and the animal-man.

In Sumer there were certain animal hybrids, like the lions with twining serpent-necks (cylinder seal, Baghdad Museum, 10759; Frankfort, 1954, pl. 8B), which also entered Predynastic Egypt under Mesopotamian influence. These are often treated like heraldic ornaments. Other hybrids play no special **56** role, except for the lioness-headed eagle Imdugud, who appears frequently during the formative period of the gods.

Among the animal-men there were fish-men and scorpion-men who guarded the door to the underworld in the Gilgamesh epic. Upon a lyre from the First **right** Dynasty of Ur, a scorpion-man is depicted with a human body and scorpion garments. He is less frightful than many other figures from the royal tombs of Ur.

Imdugud, the lioness-headed eagle

Imdugud, the lioness-headed eagle, must have possessed a special attraction for the Sumerians. It is a typical hybrid arising from the desire to accumulate power. Imdugud “symbolizes a speedy and powerful attack by incorporating in one personage both the king of the birds, the eagle, and the king of the beasts, the **56** lion" (Dhorme, 1949, p. 103).

SCORPION-MAN *with human body: Detail from a lyre. First Dynasty of Ur*

But this is only one of its meanings. Imdugud is predominantly a mythical bird, a creature mingling the cosmic and the earthly or chthonic "who decrees the fates and utters the word": so does Kramer translate the Sumerian narration on a stele (1956, p. 235), in which the hero of the saga, Lugalbanda, at the end of the world, has lost his way back to his city of Uruk and tries to find it again through a trick. "He is determined to first win the friendship of the *Imdugud*-bird who decrees the fates and utters the word which none may transgress" (ibid.). He wins Imdugud by feeding the young birds in her nest during her absence. Thereupon the bird shows him the way home from this "far-distant land of Zabu" which is "a journey from which none return" (ibid.). Imdugud is the bird who knows all and who determines destiny.

Imdugud is always presented on seals and reliefs as a female bird, with the mane-free head of a lioness, but never in a maternal function. A pair of bulls bow in adoration before the hovering bird upon a seal from the Third Early **65** Dynastic period (British Museum 116724; Wiseman, 1959, p. 22).

In contrast to the symbolic representations of Imdugud upon reliefs and seals, epic narratives bring out a maternal aspect. In the Gilgamesh epic she nested, with her young, in the crown of the tree of the goddess Inanna (p. 223).

Normally Imdugud hovers with widespread wings above heraldically organized Sumerian animals — lions or stags, wild animals like herself. Sometimes she **65** appears to be attacking them with her talons and beak.

LIONESS-HEADED BIRD IMDUGUD *with two deer: High relief in copper (42 in.). From the Early Dynastic temple at Al 'Ubaid*

In the beginning this lioness-headed eagle was usually depicted in profile, **63** with folded wings, as E. D. Van Buren (1935, p. 239) shows in a scries of illustrations. Imdugud appeared in the early Jemdet Nasr period: "One of the earliest representations . . . appears on a cylinder seal which is at least as early as Uruk III, the early Jemdet Nasr period" (p. 238). A large-scale **above** representation of Imdugud with two deer occurs upon a copper relief from the **163** Early Dynastic temple of Al 'Ubaid, to which we will return because of the sculptural projection of the relief. Henri Frankfort sees no aggressive action in this scene: "The gesture does not represent aggression but affinity: the same deity is symbolized by bird and deer" (1954, p. 30).

This becomes more understandable in representations in which Imdugud **right** holds two lions in her talons, as in a relief upon a pierced slab of Dudu, high priest of King Entemena. The hole in the slab served to hold a ritual mace. The main motif shows Imdugud, next to the donor, with the two lions who, one might almost say, gaze amicably up at her.

IMDUGUD *grasping two lions with her talons: Relief on pierced square slab meant to hold ritual mace. Lagash, Early Dynastic period*

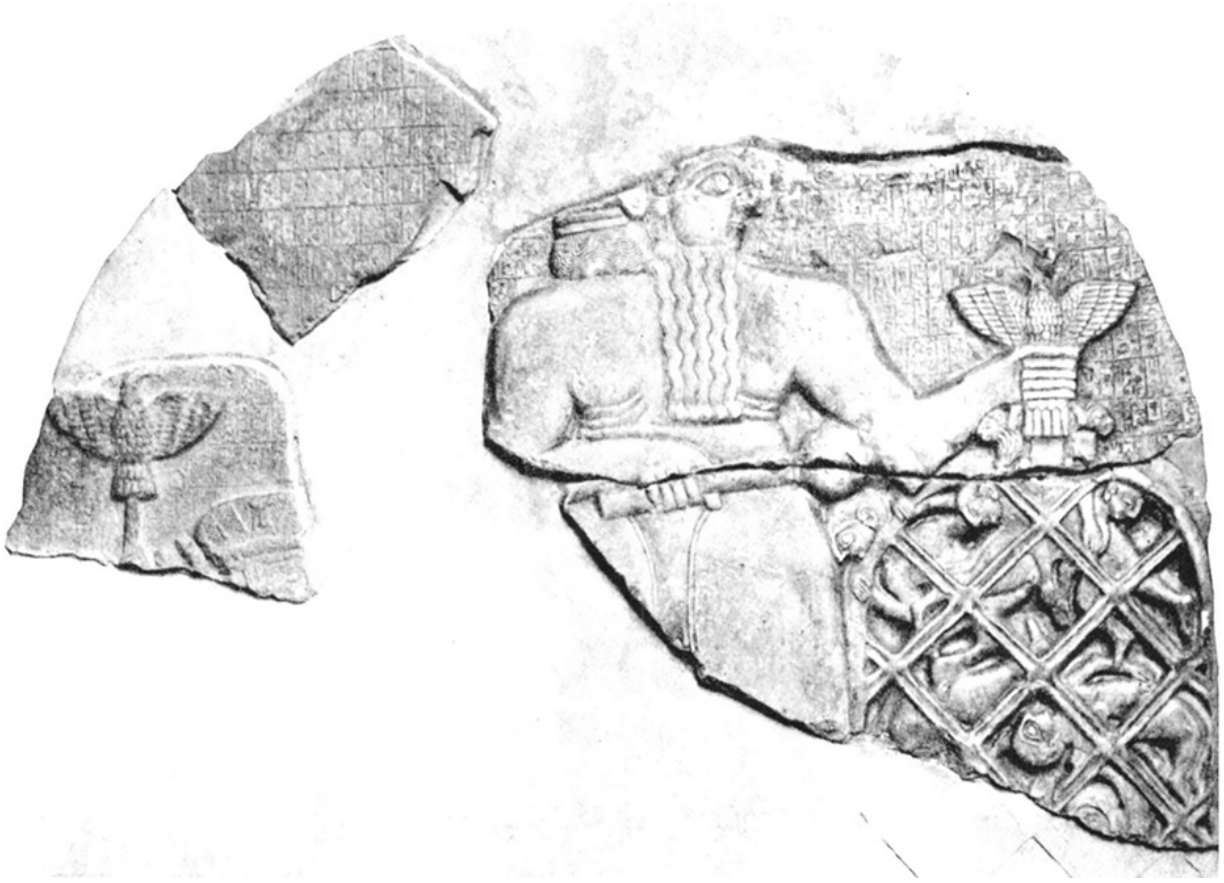
On Entemena's silver vase from Lagash, in the Louvre, Imdugud hovers above a frieze of lions, stags, and ibexes.

No other representation conveys the power of this mythopoeic atmosphere with greater immediacy than the mace of King Mesilim of Kish, around 2600 B.C. The lioness-headed eagle, her eyes and tongue encrusted with jewels, extends the heavy burden of her outspread wings

over the upper surface of this **59** ritual mace. This is the mighty storm bird, carrier of thunder and rain, bearer of fertility. Conjunction with the mace brings her warlike aspect to the fore.

IMDUGUD *on face of votive macehead of King Mesilim of Kish near Babylon. The encircling frieze of lions carries the first recorded source of the history of this land; ca. 2600* B.C.

IMDUGUD *on upper surface of the mace (see fig. 21*): *The lioness-headed goddess with outspread Wings*



VULTURE STELE *describing victory of King Eannatum of Lagash: A tiny Imdugud appears in the giant fist of the god Ningirsu. Ascendancy of anthropomorphic gods now fully established; ca. second half of third millennium*

58 Around the macehead is a frieze of male lions whose manes bear an inscription. Plastically, both Imdugud and the lion frieze are strikingly simplified. This mace, carrying the name of King Mesilim of Kish, presents the first recorded source of the history of this land. Kish is described as the oldest of the sovereign cities. It lay only a few miles east of Babylon and some fifty miles from the site of Baghdad, and belonged to the Mesilim period (named after the king), which followed the Uruk III-Jemdet Nasr period, when Sumerian sculpture was in its first bloom. This is a sign that the highly developed culture of the south was again penetrating into the north.

Imdugud represented the mighty bird of destiny who ruled alone and independently. She was bound to no city, to no god, and appeared in many places (Van Buren, 1935, pp. 237-51), until she suffered the fate of many other animals and animal hybrids and, in Lagash (Telloh), became the

emblem of the anthropomorphic city-god Ningirsu, son of the storm-god Enlil and himself a storm-god and a war-god.

Upon the famous vulture stele in the Louvre, Imdugud, in the hand of the **left** gigantic god Ningirsu, fastens the net in which enemies of King Eannatum have been captured. This vulture stele, from the second half of the third millennium, is a highly meaningful historical document. It shows the subservience of the ancient bird of fate and the rise to dominant power of the god.

The 1.8-meter-high fragment of limestone is adorned on both sides with representations and inscriptions that recount the life of Eannatum down to details of his campaign against the city of Umma. Upon the face, occupying two-thirds of the height of the stele, stands Ningirsu, wearing a stiffly pressed skirt and with a great beard reaching to his naked chest. He is gigantic in proportion to the human figures. In one hand he carries a mace with which he has just struck a prisoner on the head. In the other the storm bird Imdugud, holding two lilliputian lions in her talons, serves as a clasp to close the net. The great bird almost disappears within the enormous hand of the god. The final ascendancy of the new anthropomorphic gods could not be more strikingly represented.

The bull-man

No lion-headed bird can be found in primeval times. It is otherwise with the animal-man hybrids, of which the most important is the bull-man. During the period before anthropomorphic gods rose to importance, a bull with a human head is found on seals and reliefs, reclining, or standing upon his four legs. The bull-man of Sumer, who appears in the third millennium, is related to the far more savage and fantastic hybrids of primeval times. A leaping bull-man from **62** the Magdalenian period (cavern of Les Trois Frères, Ariège) shows very distinctly the continuous alternations between man and animal. A powerful imagination is at work as the hybrid continually changes its animal and human form from part to part and limb to limb. Its short horns, huge eyes, and nervous nostrils all recur in the Sumerian bull-man; the herds and domestic animals fall under his protection and do him reverence, as is shown upon many cylinder seals.

The principal relations between hybrids and animals were rather different. In the same cavern of Les Trois Frères another bull-man is

playing a musical **1:499 ff** instrument and driving before him a series of amazing animal hybrids: reindeer with bison heads, etc.

A comparison of this primeval musician with a representation upon a cosmetic palette from the last Predynastic period of Egypt is informative. This palette from Hierakonpolis, as M. A. Murray points out, shows a conceptual linkage between the hybrids of primeval times and those of Egypt. On the palette, now in the Louvre, "is a representation of a man who is disguised as a jackal. He wears a jackal's head and skin over his head and back with the tail dangling behind, his hands and feet are uncovered and are clearly human. He plays on a flute, and like his palaeolithic prototypes he is dancing. Like the Ariège masker he is in the midst of animals. . . . He performs on a musical instrument" (1934, p. 251; fig. in Quibell and Green, 1902, pl. XXVIII).

The conceptual link is especially noticeable in the human feet — it is a human being with an animal's head.

High above the swarming animals in the cavern of Les Trois Frères is the **1:500** most famous of all hybrid representations, the "sorcerer" with reindeer horns, human beard, and enormous eyes. In his shamanlike form he draws the hunted quarry magically toward him.

The Sumerian bull-man, especially in the period of animal domestication, appears more often as a protective spirit against the onslaughts of savage animals, a combative defender.

The most plastically interesting representation of the bull-man, with the body **right** of a bull and the face of a man, is in relief upon a roughly square limestone plaque from Al 'Ubaid, of the time of the First Dynasty of Ur. This shows a wild bull, as though escaped from the primeval period, clambering up a mountain. The Imdugud bird, with folded wings, sits perched upon its back and, symbolizing the combating forces of preservation and destruction, "rends the beast's hindquarters with its sharp teeth" (Van Buren, 1935, p. 237).

PREHISTORIC BULLMAN: *One of the prehistoric hybrid creatures. Cavern of Les Trois Frères* (*Anège*), *Magdalenian period. From Bégouën and Breuil*

A cylinder seal of the Third Early Dynastic period leads us into the atmosphere of a religion in which the bull-man played a leading role. Upon the upper **65** register: “On each side of a mountain surmounted by a three-branched plant lies a man-headed bull raising one foreleg to rest its hoof on the mountain” (p. 245). The plant signifies “perhaps the 'sacred tree’ or the 'tree of life’ ” (Wiseman, 1959, p. 21). The bird Imdugud again sits on the back of each of these bulls, tearing at their flesh. At either side, two figures stand ready, dagger in hand, to stab the lioness-headed eagles. The scene does not represent a battle but has an undefined symbolic meaning. The bull-man is the guardian of the sacred tree, the protector of life. Of the two

"heroes," whose heads mainly consist of a single enormous eye, little can be said except that they represent "mythological figures" (ibid.). In the lower register the religious atmosphere is heightened. Two bulls bow their heads in reverence before an eagle with outstretched wings.

BEARDED BULL-MAN *climbing a mountain: Imdugud with folded wings is perched upon his back. The prehistoric bull-man has reversed his traits and become almost domesticated. Relief on limestone plaque from Al 'Ubaid. First Dynasty of Ur, ca. 2500* B.C.

Sumerian man's tragic attitude toward life is expressed in endless combat between man and man, animal and animal, man and animal — an

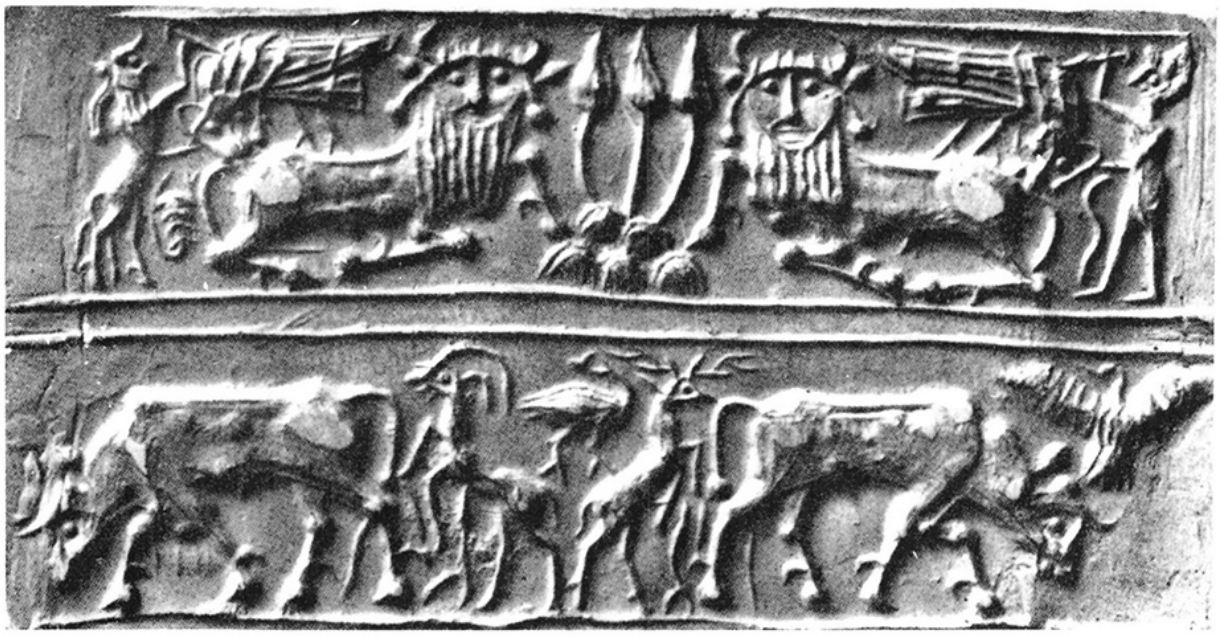
ever-recurring theme of early seals and reliefs.

In primeval times there were representations of beasts of prey who had fought unto death, such as a creature with a great stream of blood flowing from his mouth, in the cavern of Pech-Merle. Of the battle leading to this end we **1:321** have no knowledge. Probably there was none. What was depicted upon the rock in this secret position was an active symbol, the representation of a wish that demanded fulfillment.

Throughout the whole history of Mesopotamia, scenes of combat are constantly depicted, in complete contrast to Egypt where such scenes lasted barely beyond the period of early Sumerian influence. In the final third of the Early Dynastic period, battle scenes between animal and animal and man and animal increase in number. Earlier peaceful sequences of strongly abstract animals, of running ibexes, or goats interspersed with fish and frogs, or of **458** animals juxtaposed upside down as in primeval times, vanished before the flood of combat scenes.

This is the period in which the bull-man lost his animal-like stance. He now stands upright. And not only that: although he retains two animal legs, the upper part of his body has become humanly slender. He still bears the horns and ears of a bovine, such as were always retained by the Egyptian cow-goddess Hathor. His human face has become ever more strongly emphasized, framed within a pointed or a large, squared-off ceremonial beard. The bull-man is one of the most frequently represented figures during the third millennium, the period of transition from hybrids to anthropomorphic gods.

Upon a seal from Tell Agrab of the Second Early Dynastic period, two such **65** bull-men, with bull's hindquarters and human upper body, are about to fall upon a lion that has attacked a cow.



RECUMBENT BULL-MEN *flanking a mountain, with Imdugud on their backs. Three branches sprout from the mountaintop (tree of life*?). *Impression from cylinder seal of Third Early Dynastic period*

BULL-MEN WITH HUMAN ARMS *attacking a lion assaulting a cow. Impression from cylinder seal. Tell Agrab, Second Early Dynastic period*

BULL-MAN AND HUMAN FIGURE *repressing rampant lions and bulls by magic force: Central figure probably vegetation-god Tammuz. Impression from cylinder seal of Third Early Dynastic period*

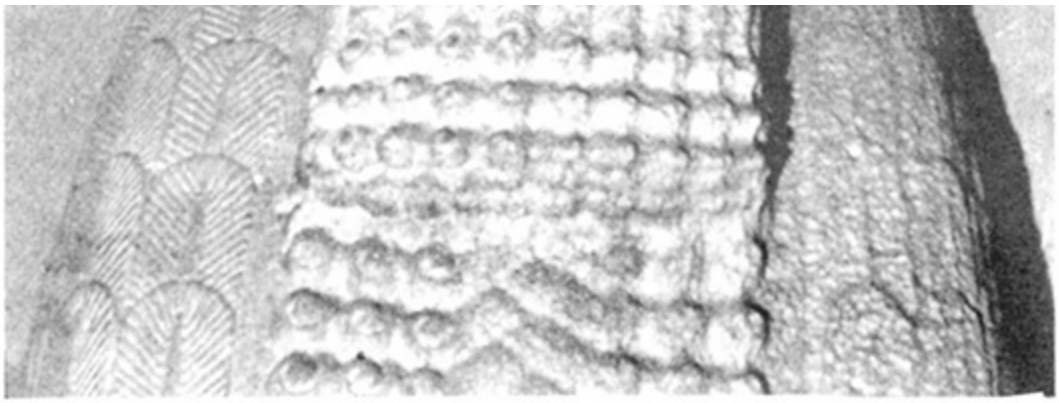
The bull-man often accompanies a human figure whose meaning is not exactly determined. Frequently he can be identified with the Sumerian god of vegetation, Tammuz, who also signified a combination of procreative and protective powers. Upon a seal from the Third Early Dynastic period (British Museum), the bull-man appears with a bearded "hero," naked except for a **65** three-stranded girdle and a mystifying headdress. This purely human hero appears to hold off two rearing bulls, more through magic than strength as, ever more strongly, the bull-man holds off two rampant lions. He subdues them simply by thrusting his arms against their breasts. It is a magic scene of destructive forces held in check. Frankfort points out in connection with a similar scene that "the struggle between lion and bull stands for a conflict between divine forces, and one may surmise that the lion represents the destructive aspect of the Great Mother, an aspect which was recognized but believed to be held in check as a rule" (1954, p. 12).

In the Protoliterate era, in which the bull-man has not yet been traced, the **161** figure of the bearded "hero" appears in full plasticity, in the friendly embrace of animals, upon vases from the Jemdet Nasr period (e.g., ibid.). Since the "hero" has often been identified with Tammuz, the divine herdsman, his head-dress **65** upon the seal might represent plant symbols of the god of vegetation.

The bull-man in the Late Assyrian period

The bull-man recurs among the colossi of the Assyrian empire, but in a radically altered form. He stands before the gigantic palaces of the kings as a guardian and a force to ward off evil. In front of the king's residence and in the throne **right** room of Khorsabad built by Sargon II (722-705 B.C.), striding and yet statically frozen despite his giant wings, he stands again as a bull on four legs. But on this bull's body are a smooth courtier's head and features, which we isolate in our picture to draw attention to the perfumed atmosphere of the carefully trimmed beard and coiffure. Two ornamental horns, the insignia of a deity, curve smoothly around a fezlike headdress.

This figure has arisen from two different prototypes, the bull-man and the lion, which in the early periods had served as guardians of the temple. In the **211** temple of Al 'Uqair lions are painted to right and left of the altar, and in **5** the small temple city of Tell Harmal (ca. 2000 B.C.), near Baghdad, they crouched before the entrance with wide-open, snarling jaws.



HUMAN-HEADED BULL: *Head of colossal granite winged bull from Khorsabad. Late Assyrian period*

Among the best of the surviving human-headed bulls from the Late Assyrian period are two in rose granite which guard a door in the inner town wall of Nineveh. They came to light in 1941 as the result of an earthquake and now stand upon the site, protected by a wooden roof.

The bull-man, first the outcome of a profound fatalistic faith, has become a decorative vestige. However, these colossi still hint at his earlier significance in Mesopotamia. But instead of being guardian of the herds and wrestling with the savage powers of nature, he has become a gigantic amulet to frighten away the evil spirits which beset the ruler within and without his palace gates.

Subjugation of the animal

Reliefs and cylinder seals inform us of the slow process of subjugation of the animal throughout the third millennium. At first animals appear alone in their majesty. Then, in the Early Dynastic period, man enters, in the form of the **65** bull-man or the hero, suppressing rampant lions and bulls.

In the following period the attitude toward the animal becomes distinctly different, simultaneously with the rise of the first world conqueror, Sargon of Akkad. This is the time when the king became himself divine: no longer the priest-king but the god-king. On the stele of Naramsin, one of Sargon's successors, the king has assumed the divine insignia: a horned crown.

The subjugation of the animal is further revealed in another seal on which the bare right leg of the goddess Ishtar emerges from beneath her long woolen **right** robe as she treads firmly upon the back of a crouching lion. In one hand the goddess wields a toothed sword and in the other "a

leash (double in the upper part) attached to the mouth of the lion. I take it that the weapon fits in clearly with the character of the goddess, while the other also connotes her power which can quell even such a creature as a lion, which was, of course, her special animal" (Letter to the author from H. J. Kantor, March 11, 1962).

Hybrids in Egypt

Hybrids assumed great importance in Egypt because of the persistence of animal cults. They were inextricably interwoven with the great Egyptian deities whose form immediately betrays their continuous kinship with the animal world. Many of them were habitually represented as hybrids, others as animals. The animal forms reach back to primeval times, the hybrid forms occur mostly during the transition from divine animal to anthropomorphic god. In many cases the actual sequence of transformation from animal to hybrid can be followed from existing representations.

THE GODDESS ISHTAR AND THE LION: *The goddess subdues the lion by placing her bare foot upon its back and holding a leash attached to the lion's mouth*

Out of the darkness looms Suchos, an influential crocodile-headed god whose “noble crocodile’s form came forth from the Nun [the primeval ocean]" (Bonnet, 1952, p. 757). Anubis, jackal-headed god of the dead, was the embalmer who could give new life to the mummified body. His parentage is uncertain: “Texts of the high period never name his father or his mother and refer to no place of origin” (Garnot, 1948, p. 48). He too stands alone, like Suchos, the fertility-god Min, and Hathor, who never lost her cows’ ears and whose origin is lost in the mists of prehistory.

Horus, the protector of the king, was a falcon before he adopted hybrid form. Seth, with his grotesque head, descended from an animal of indeterminate race. Many interpretations have been attempted, but without success. Horus the sun-god and Seth the desert-god were incorporated into the family of Ra by Heliopolitan theologians. But earlier they had been entirely separate.

Among the mother-goddesses thought to have existed before any life came into being was the fertility-goddess Mut, who is sometimes even represented as an ithyphallic androgynous creature (Lanzone, 1883, III, p. 335; pl. CXXXVI), but is normally shown as a seated lioness-headed woman. Mut is often intermingled with Sekhmet, goddess of warfare, who also bears the head of a lioness. Both of them eventually became connected with the highest gods: Mut as the consort of Amon-Ra, Sekhmet as the consort of Ptah, supreme god of Memphis. **right** One of the hundreds of Mut or Sekhmet statues is shown here. It still stands in the fertility temple of Mut at Karnak.

Of all these composite beings, the Sphinx at Giza is perhaps the most intriguing, since in it god, god-king, animal, and sun cult all merge together.

The Sphinx

The Sphinx, a lion with a human head, was hewn out from the living rock: an enormous boulder remaining within the stone quarry excavated for building the pyramid. It is a sculptured mountain. Even so, it is not really a freestanding sculpture, since it is surrounded on three sides by the rock walls of the quarry. **72** It is curious to note that this most colossal sculpture of Egypt is actually hollowed out of the rock like a sunken relief. Its horizontal back lies level with the **73** surrounding desert; only the head projects above the horizon, giving the whole its well-known aspect. Since

the body lies within its large U-shaped bowl of rock walls, it has repeatedly been covered with sand. Even in the last century it has had to be cleared three times.

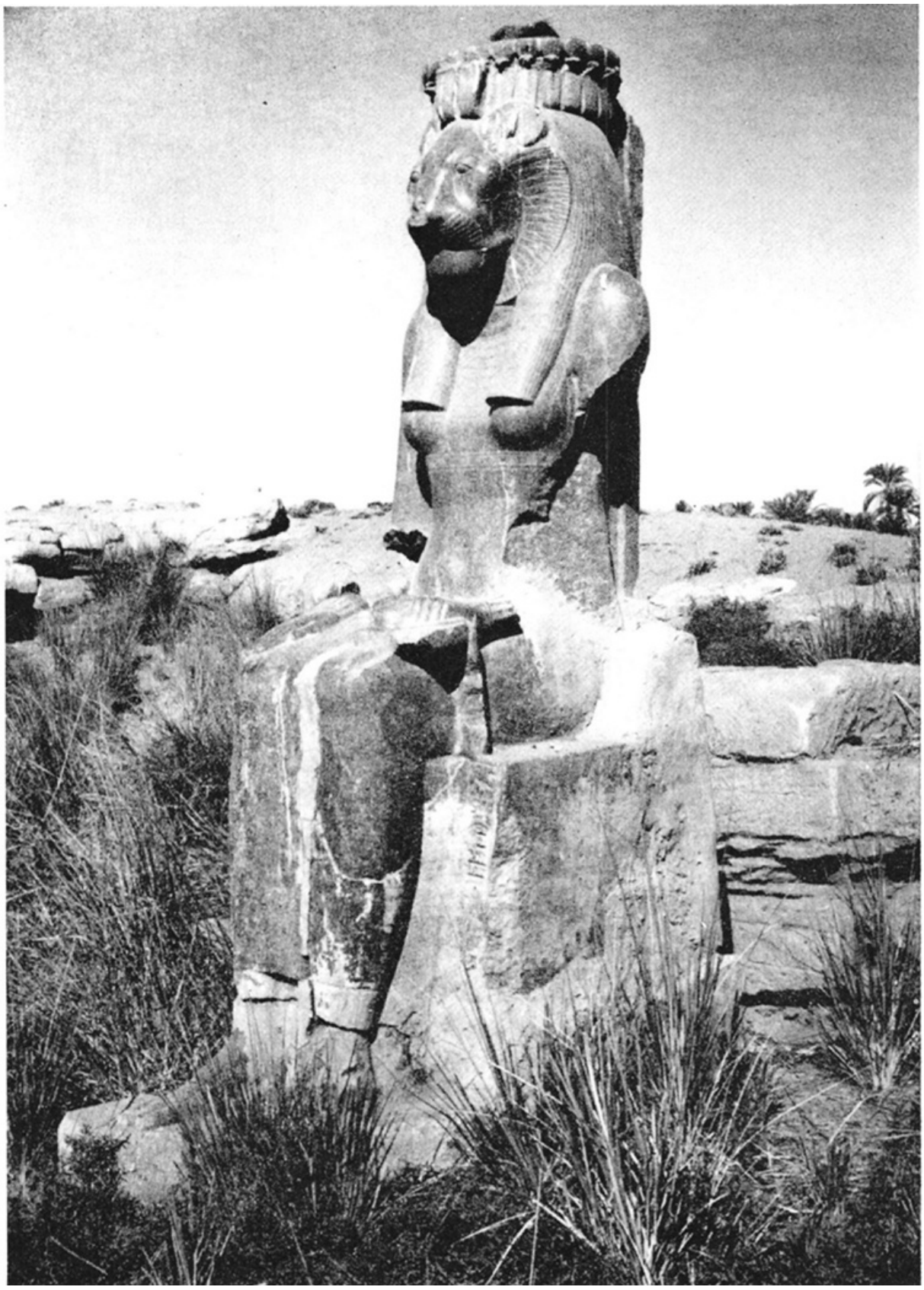
The Sphinx faces to the east. For us this is a simple point of orientation, but for the pyramid age it meant the rebirth of the sun and the reappearance of the gods. The west was the direction of death — the realm of the dead — but the east meant the continuance of life.

What was the significance of the Sphinx?

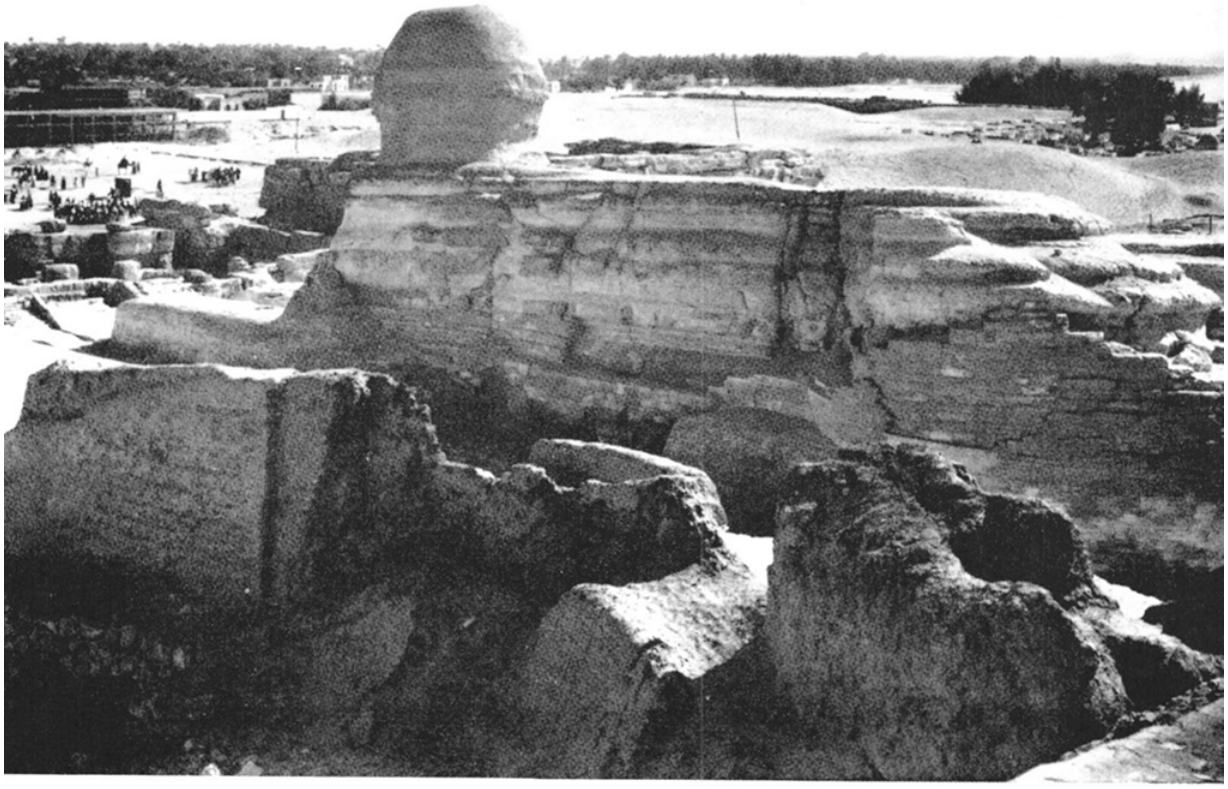
Originally it represented King Chephren, wearing his royal headdress and ceremonial beard. This was ascertained by Mariette, who excavated the body of the Sphinx and found Chephren's temple lying protected between its two great paws.

Even in Predynastic times, a kind of sphinxlike creature had existed, with "the body of a lion, and the head of a hawk or eagle . . . provided with wings" (Hassan, 1953, p. 145).

In Heliopolitan theology the king became a sun-god after death: "The Giant Sphinx would therefore represent Chephren as the Sun-god acting as the guardian of the Giza necropolis" (Edwards, 1961, p. 108). The Sphinx records the moment of closest identity between god and Pharaoh: between the invisible and the visible.

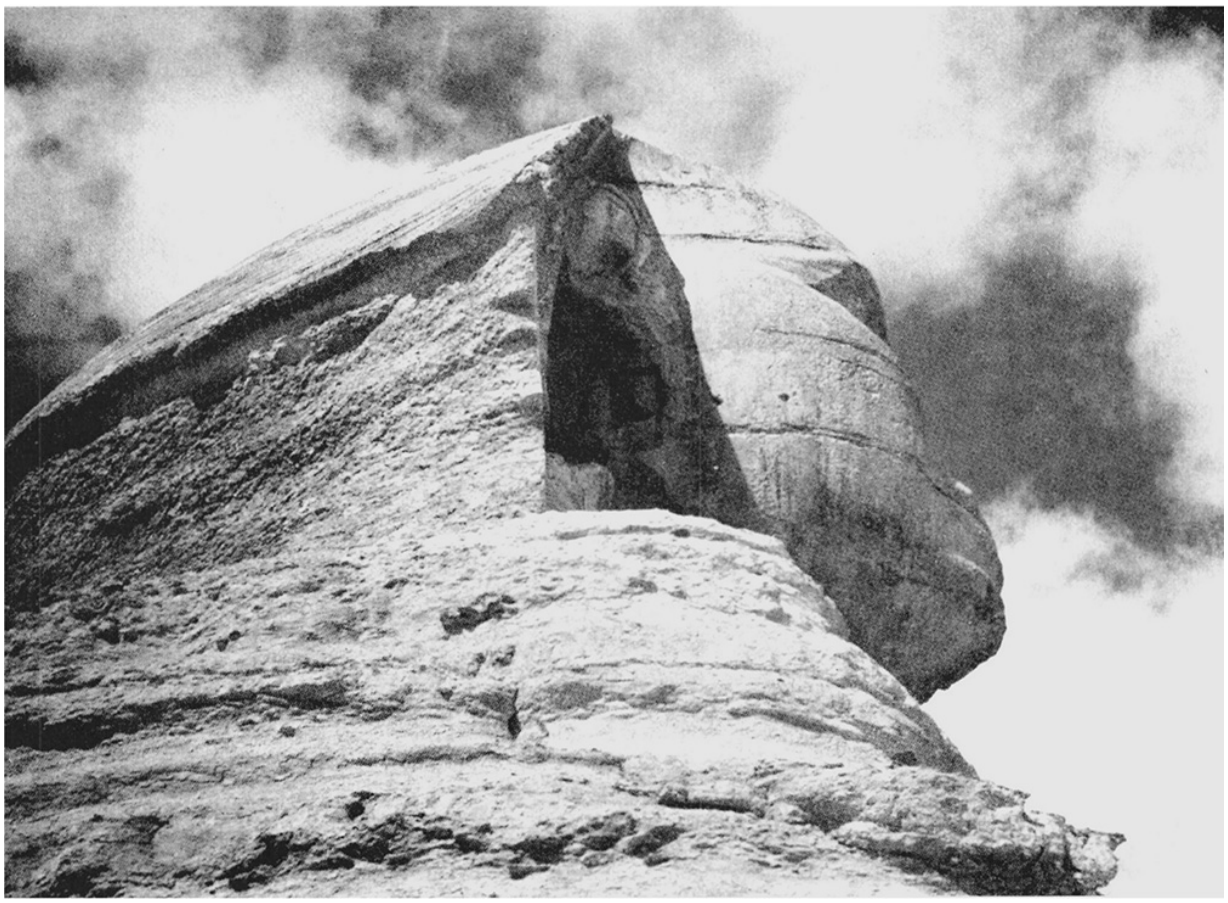


LIONESS-HEADED SEKHMET: *One of the many statues of this Egyptian goddess from the temple of Mut at Karnak. Eighteenth Dynasty*



BODY OF THE SPHINX *from the north, rising from horizontal strata of natural rock. Giza, Fourth Dynasty*

After the pyramid age the original significance of the Giza Sphinx seems to have been forgotten. It became incorporated in the solar cult, identified as the god Horus of the horizon. The sphinx upon a granite stele of King Tuthmosis IV utters these words: “I am thy father, Hor-em-akhet-Kheperi-Ra-Atum” (Hassan, 1953, p. 222). This means the sun in all its phases. Actually one cannot speak of a real forgetfulness of the original significance of the sphinx, since its form was always pluralistic in meaning.



HEAD OF THE SPHINX *from the south, showing the rock structure of the face and parts of the body*

The Sphinx of Giza remains unique in size and impressiveness. The numerous colossal statues of the Ramesside kings of the New Kingdom, placed before the **380** pylons of their temples or — as at Abu Simbel — hewn directly out of the rock face, never attain the mystic power that still emanates from the Sphinx despite its mutilated features.

CONSTANCY AND CHANGE IN FERTILITY SYMBOLS

Constancy and change have seldom been so interwoven as in the sequence from fertility symbol to venerated animal and then to goddess. The different stages are so intermingled that one can scarcely be distinguished from another.

From fertility idol to goddess

In prehistory all human beings played insignificant roles in comparison with the major animals, but the female — the generator of the species — was more important than the male. The woman is the visible bearer and molder of life Desires for fertility and procreation are concentrated in the female form. This **1:437** was expressed in the naked and pregnant Venus figurines from the early Aurignacian period, and stressed by their exaggerated buttocks, breasts, and sexual triangle. They were not goddesses but potent magic symbols, able to bring new life to birth or to renew the life of the dead, beside whom they were buried in later times.

With the beginning of agriculture, in the fifth and fourth millenniums, a different type of Venus figurine appeared. This type, found in many early Mesopotamian settlements, such as Jarmo, Hassuna, Arpachiyah, and Tepe Gawra, is a seated figure with horizontally outstretched legs, molded of clay and unfired. Somewhat later these figurines were joined by a slender standing type (Ur), much like that of the Magdalenian period of prehistory, but this type was heavily outnumbered by the seated figurines.

SEATED CLAY FIGURINE: *Armless fertility idol with protuberant buttocks. From level V, Hassuna (northern Mesopotamia). Early fourth millennium*

The rough sculptural treatment of a figure from level V in Hassuna, northern **left** Mesopotamia, gives a moving insight into a helplessly floundering search for plastic expression.

A figurine from Deir el Ballas in Upper Egypt comes from an early period for **below** Egypt, the protohistoric (Nagadah I, sequence dating 34). It is, however, later than the Hassuna figurine. Its face, though indistinct, is not veiled. It has no arms. Its breasts are fully formed, its powerful thighs stretched forward and covered with the cuplike hollows which, throughout all prehistory, were employed **1:132 ff** to strengthen the power of a fertility symbol. Its attitude has been likened, not without foundation, to the posture of giving birth. Such figures are still earth-bound and as much tied to

chthonic concepts as the Aurignacian Venus figurines. Whether they set forth a personal request or whether we already find here the representation of a more generalized form — the earth mother or the Great Mother — is uncertain.

SEATED CLAY FIGURINE *with powerful thighs and well-developed breasts. From Grave 394, Deir el Ballas* (*Upper Egypt*). *Protohistoric period, Nagadah I*

The leap from fertility charms to the Great Mother, and thence to a goddess or goddesses, came about with the creation of an anthropomorphic

pantheon; afterward, a male god assumed undisputed supremacy in a male-oriented society. The change from the fertility idol to the more generalized concept of the earth mother and then to the anthropomorphic goddess was, as Erich Neumann has stated (1.955, pp. 185-86), obscured by the rising dominance of the male and the male gods. The patriarchal principle ushered in the bloodthirsty warring period preceding the foundation of the first states. The creation of a world of gods and the foundation of states were contemporaneous.

When the god Atum spat or masturbated to create Tefnut and Shu, or the god Amon-Kamutef created his mother, the natural process seems to have been reversed.

All this led to a division and a masking of the primeval fertility beliefs which were bound up with the female process. Hermann Kees was struck by the scarcity of myths relating to a goddess who “did not admit the need of help from a neighboring god but was able to create life from her own forces" (1941, p. 162). Yet the long prehistoric tradition of the supremacy of the female role remained alive and could not be entirely dismissed even up to the end of Egyptian history.

When questions of the origin of the universe began to disturb the human mind, the goddess who had evolved from the ancient fertility idols acquired a self-generative character. She was considered the daughter and mother who created her begetter, and was often thought of and indeed sometimes represented as an androgynous being, a female counterpart to Amon-(or Min-) Kamutef.

Legends tell of the “male-female primeval force’’ of the goddess Neith, “the terrible arrow-goddess from Sais” (ibid.). Sethe also stresses that Neith, “without detracting from other theological precepts, acted as the oldest of all the gods: ‘the great one, the mother of the gods,' who was already born when nothing else existed and who, therefore, was considered androgynous, like Ptah from Memphis” (Sethe, 1930, p. 68).

Even in Isis, who was closely woven by the priesthood into the family of the Heliopolitan gods and transformed into a loving wife and gentle mother, we meet traces which point to the original autonomy of this sorcery-filled goddess and to the mystery of her conception, achieved by her own power, thus hinting at her inherent bisexuality (Kees, 1956, p. 139). The legend of the murder of Osiris and her finding the scattered parts of his body reads like a Greek myth. It is not surprising that Plutarch, the

comparative biographer of the first century A.D., selected it in his story *De Iside et Osiride* and that the cult of Isis penetrated the Hellenistic world and slowly expanded over the entire Roman Empire.

Hathor

The direct sequence — primeval charms, earth mother, goddess — is not the only route. There are other ways: from animal to cosmic deity. But whether the starting point is charm or animal, the meaning remains the same: the desire for fertility.

The cosmic projection arose from the "fetishistic local gods" (Sethe, 1930, p. 6) which appear on the Predynastic standards of the different districts. In historical times, certain of these were transformed into celestial cows whose bodies were the universe and whose legs formed four pillars upon which the heavens rested.

The earliest accounts are contained in the Pyramid Texts. But these derive from the Fifth Dynasty, when the priesthood had already attained its dominance.

Among the various celestial cows that persisted was Hathor, the nurturing all-mother, who, even when she took on a human body, never wholly lost the signs of her animal form. Originally she was probably a wild cow, although this can only be proved for another of the cow-goddesses (Bonnet, 1952, pp. 403-4). In Predynastic times she appears, together with a calf, as the emblem of one of the nomes. Hathor had several companions, among them Nut, who was also depicted as a celestial cow.

The link between female animal and earth mother can also be observed in yet another celestial cow, Methyr, whose name means "Great Hood." She arose from the primeval ocean and bore the sun and "set this child of hers between her horns" (Sethe, 1929, p. 93). The link that binds these heavenly kine together is the primeval maternal fertility symbol that, while still retaining its animal form, was transposed to the cosmic sphere.

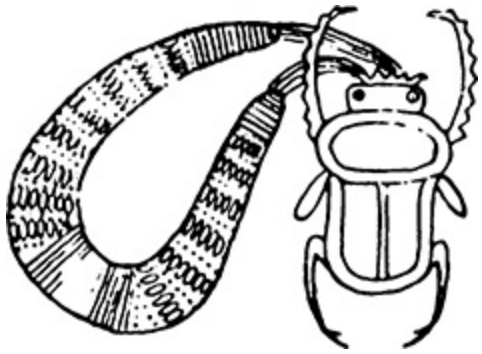
None of the other mother-goddesses of Egypt had so enduring an influence as Hathor, whose chief distinguishing characteristic was the plurality of her aspects: fertility idol, self-begetting goddess, cow from the marshes of the Nile delta, anthropomorphic goddess in close attendance upon the king. Hathor was simultaneously guardian of the Nile delta, of the

marriage bed, and of the necropolis of Thebes: donor of life and protector of the dead. She bequeathed to mankind the joys of life and the powers of love: “From ancient times Hathor was honored as the goddess of joy with dance, song, and music” (Hermann, 1959, p. 23). Her instrument was the sistrum.

In the form of Hathor the beauty of the female body found, for the first time, full plastic expression. In her final phase she became the goddess of love. The ritual hymns to her, which go back to the Middle Kingdom, arc, as Alfred Hermann makes clear (p. 25), forerunners of individual love poems:

> *I say of her that I take pleasure in her aspect*
> *My arms make (the gesture*)
> *Come to me, come to me.*

The interwoven threads of Hathor’s significance arc scarcely possible to **below** disentangle. Even her neckband, or *menit,* carries on the traditions of a fertility symbol. It has a kind of counterweight whose stylized form goes back to a fertility idol in the shape of a female torso. In Eleventh Dynasty graves at Deir el Medineh (Barguet, 1953, p. 103) the counterweight was replaced by the scarab, Khepri, symbol of the rising sun: growth and transformation. The inscription states that the deceased touching the sacred object is given abiding life and constantly renewed youth (p. 109).



NECKLACE OF HATHOR *fastened by a scarab, symbol of recurring life, which acts as a counter-weight. From a tomb at Deir el Medineh. From Barguet*

Prehistoric links

Hathor shows more traces of her prehistoric origins than any other goddess. Her head was depicted four times on the upper corners of the Predynastic Narmer **below** palette: a hybrid head with human features intermingled with cows' ears and horns. This representation remained constant into Roman times.

An Amratian tablet reaches even further back than the Narmer. According to **below** its finder, Flinders Petrie, it represents the head of a cow with five-pointed stars at the tips of its ears and horns, and another resting on its point above the forehead. In *The Beginnings of Art* we compared this representation with the late- **1, 114** neolithic abstract human figures from eastern Spain: headless, with hands and feet ending in starlike forms.

How should this mysterious palette be interpreted? Abstract head of a cow or abstract female torso? Legless torsos were common both in Mesopotamia and Egypt. Women with curving upraised arms are a standard type of Amratian figurine. There were no goddesses in Egyptian prehistory, but it may well be that in this and other such representations interweaving cow, mother idol, and goddess the transformation process had its origin. A. J. Arkell compares the Amratian tablet to other early representations incorporating stars and suggests a cosmic relationship: "Probably the resemblance of the new moon to a cow's horns was the reason why a cow-goddess was first associated with the sky. She would then soon be thought of as giving birth to the moon and the stars at nightfall. In this way seems to have arisen the concept of Hat-hōr, 'the house of Horus' the sun-hawk'' (1955, p. 126).

PREDYNASTIC SLATE PALETTE *Amratian palette representing the abstract head of a cow, its horns, ears, and forehead tipped with stars. Probably simultaneously a representation of the torso of a precursor of the goddess Hathor. Amratian period. From Petrie, et al.*

HATHOR HEAD FROM NARMER PALETTE: *One of the four Hathor heads from this palette, which extends to form an abbreviated torso as in the*

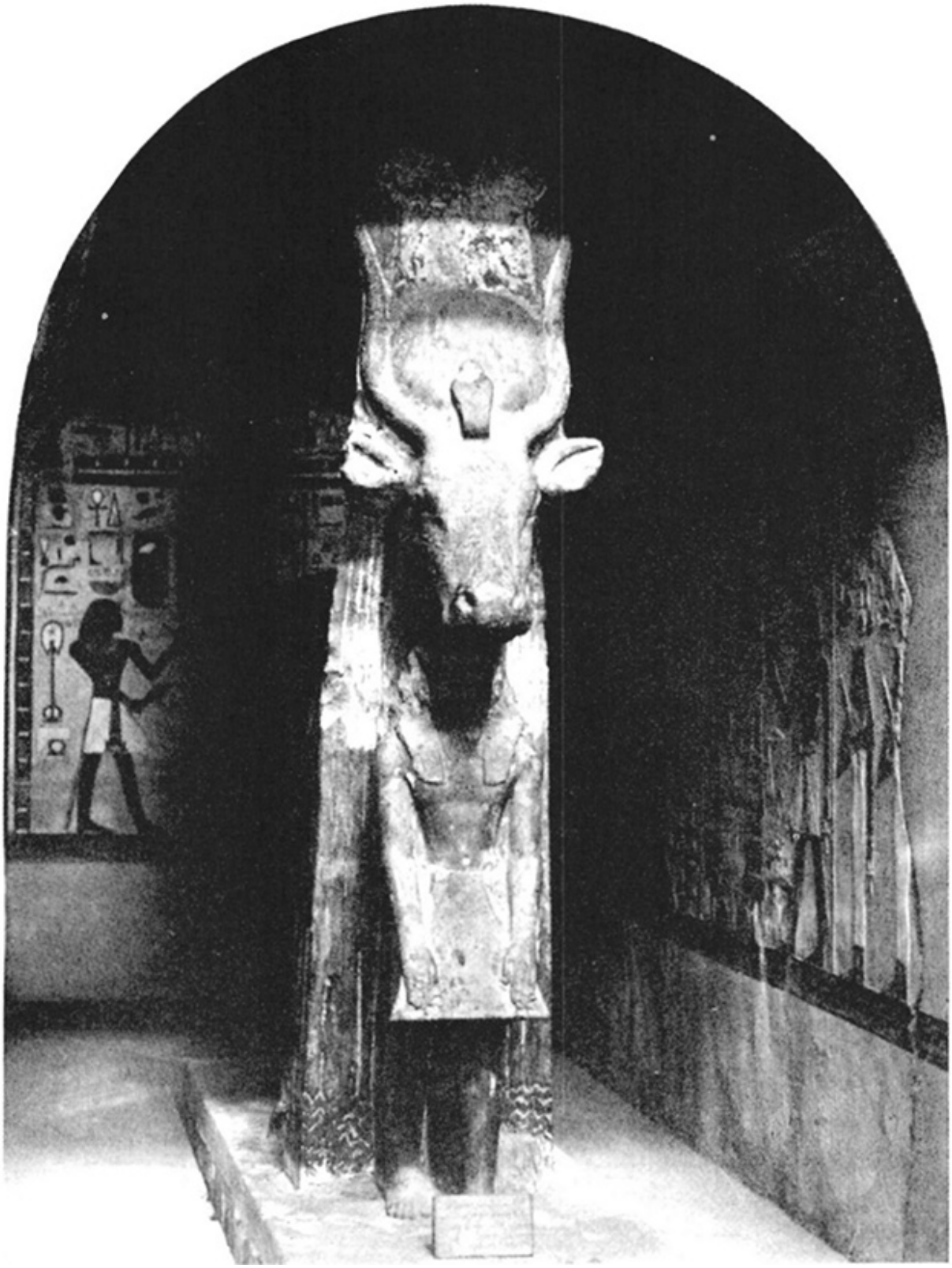
Hathor and kingship

From the beginning, Hathor was closely associated with the king, as the Narmer tablet shows. In the pyramid age, in the first blaze of the anthropomorphic **469** deities, Hathor appears in a series of triads as companion to King Mycerinus of the Fourth Dynasty, the backs of their hands touching. In these triads where she stands with the king and a goddess of one of the provinces, Hathor still bears her curving cow-horns, though her wholly female form conveys the impression **109** of a close human relationship with the king. **A** fragment of one of these triads, **107** which will be described later, brings out clearly how here the full beauty of the female body was for the first time given plastic expression.

The close connection between Hathor and the kingship gained additional ritualistic strength at the beginning of the New Kingdom, when she was made guardian of the necropolis of Thebes. With this she became more of a protectress than a companion. In her original form as a wild cow she strides out from a **right** barrel vault in the rock face of Deir el Bahari, sheltering the Pharaoh Amenhotep II beneath her body. Elsewhere he was depicted kneeling beside her udder to drink her sacred milk: “He wished thereby to prove that she was his divine mother, and the complacent manner in which she yields him her milk sufficiently shows that she admitted the legitimacy of his claim’’ (Maspero, 1912; tr. 1913, p. 112).

Even more dignified is the scene in the Hathor shrine of Hatshepsut's mortuary **423** temple at Deir el Bahari, where the sacred cow stands proudly in profile upon her boat emerging from the Nile marshes, the disk of the sun between her horns. Beneath her head stood Queen Hatshepsut, whose figure was later erased. Only Hathor's neckband — the *menit* — remains undamaged, encircling the necks of both Hathor and the queen as if in an embrace. This delicate gesture of encirclement was later used when a woman wished to show a man her affection (Hermann, 1959, p. 21).

Hathor's cult continued unabated throughout Ptolemaic times, and even later. Her image traveled annually up the Nile from her cult center at the temple of Denderah, near Thebes, to celebrate her marriage with her son Horus at his Ptolemaic temple at Edfu.



HATHOR EMERGING FROM BARREL VAULT: *Relief from the Hathor chapel of Amenhotep II*

In *The Beginnings of Art* we followed the transformations of a deity from a mountain stag to the many-breasted Artemis Ephesia. Here the transformation **1:217 ff** always remained within the orbit of fertility rites. The transformations of Hathor cover a much wider range, even though she never relinquished attributes of her earlier phases, but incorporated them always within her expanded significance: from fertility charm to love poem. Like many other gods, Hathor was a collective symbol.

In popular belief she remained the tangible symbol of female fertility. More than any of the other divine cows, she retained her nurturing mother aspect, and she appears in many different forms as the helper of women. In a litany from the Late Period, eighteen forms of this great goddess were recounted (Bonnet, 1952, p. 280).

Inanna

In Sumer there were also various kinds of fertility-goddesses. But there the situation was much simpler and less entangled in myth. Most prominent is Inanna. Before Inanna assumed human form she appeared as a primeval symbol, a long, cometlike pole of bound reeds, usually depicted (as upon an alabaster **120** vase from Uruk) paired near a priestess and (upon cylinder seals and reliefs) jutting out from the roofs of the cattle stalls, showing her to be protector of the domestic herds. But even in the earliest tablets from the time of the Gilgamesh epic, Inanna, protector of arable fields and domesticated animals, had changed into a love-hungry Venus and soon afterward into a bloodthirsty goddess of war.

122 ff Inanna, in contrast to the Egyptian fertility-goddesses, belonged to the highest rank of the Sumerian hierarchy. She, her father the god of the moon, and her twin brother the god of the sun formed the supreme triad. Inanna was identified with the most brilliant star of the evening sky, Venus. Later this **123127 ,** planet, with eight or twelve rays enclosed within a circle, will become her symbol, and “little by little the goddess of war and love will absorb the other female personages of the pantheons of Sumer, Akkad, and Assyria" (Dhorme, 1949, p. 74).

As with the Egyptian goddess Hathor, popular belief clung to her primeval function as a fertility-goddess. Further, the populace saw her as “the mother of sorrows who listens to prayer, who intercedes with the angry gods and succeeds in appeasing them. ... A profound feeling of tenderness

animates the hymns and prayers addressed to her" (ibid.). Both Hathor and Inanna exemplify the dynamic transformations of the earliest gods.

Min as idol and as god

Human representations in Egypt in the early days did not always represent anthropomorphic gods. One of the few Egyptian gods who certainly stems from the reservoir of prehistory is Min. This god can be followed throughout the whole course of Egyptian history, beginning with his unusual Predynastic **85** statues from Coptos, up to the Ptolemaic period. It was in the New Kingdom, which liked to revive early customs, that Min achieved his greatest renown: he was absorbed by the sun-god Amon-Ra, who came to be portrayed as ithyphallic, in the likeness of Min.

Even at the extreme end of Egypt's most brilliant period the beautiful reliefs in the second court of the temple of Ramesses III (1195-1164 B.C.), at Medinet **87** Habu, show the high regard paid to Min and to his festival of the renewal and promotion of fertility.

Min as idol

The Min statues from Coptos are not representations of a god. They are fertility idols. When Petrie found them at Coptos, unrelated to any definite stratum, their large size, unusual for prehistory, presented a riddle. They are unique, and could even arouse suspicion were it not for the reliefs upon their sides. These, as we have shown earlier, are so close to prehistoric representations **1:206 ff** that they can be directly compared with the themes and the methods of depiction of the Magdalenian period. They show that stags' antlers, known to **85** be one of the oldest symbols of fertility, were at the same time the oldest symbol associated with the god Min. Antlers can also be recognized in his hieroglyph, which has been variously interpreted as a fetish symbol resembling a "wooden bolt," or as a thunderbolt. The traditional interpretation of the antler is as a symbol of fertility and renewal of life. That this was so, even in the fourth millennium, can be seen in the ibexes on mortuary pottery vessels from Samarra **454** and Susa, with their enormously accentuated horns in comparison with their puny bodies.

The feather, which appears above the Min symbol on the Min reliefs, represented in primeval times (as French prehistorians have recently

discovered) **1:200** an abstract form of the phallus.

Many views have been put forward regarding the place of origin of this god of fertility and his migration into Egypt. He has been thought to come from Somaliland (Punt), from Asia, and from Libya. This is of less importance than his general derivation. He is rooted in the traditions of primeval times. His body is formed like a pillar, his right arm pressed close beside his body and his left **85** hand holding his ithyphallic member. The body is covered with many large cupules (cuplike hollows), which were associated throughout primeval times with the desire to induce fertility. Close to where his legs are broken off are two **1:132 ff** diamond shapes with a crossline. This form has been identified by C. Hentze, from Magdalenian bone engravings, Mesopotamian cylinder seals, and also **1:198** from China, as a vulva symbol.

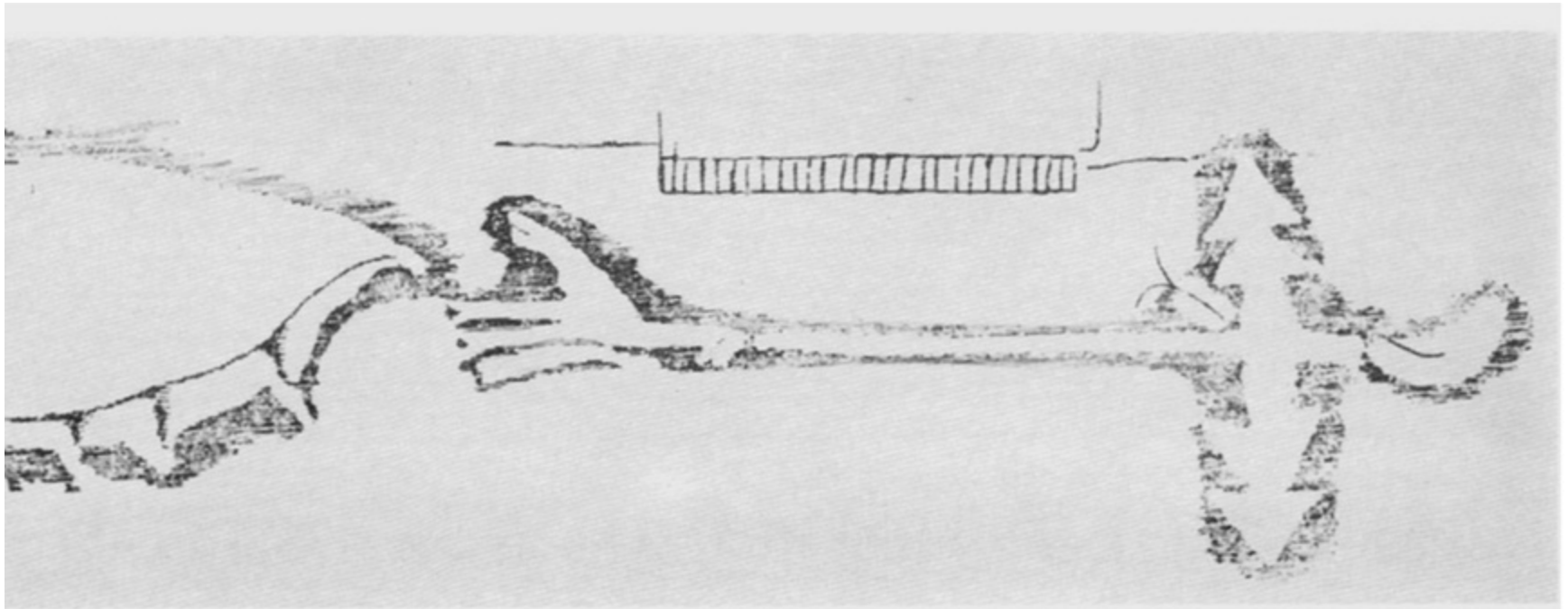
In addition, there are the reliefs on the flap at the side of the figure which **1:205** repeat a Magdalenian motif: an animal's head with outstretched tongue reaches toward vulva symbols (conch shells). These reliefs tell something more. Their motif does not, like most Predynastic Egyptian symbols, belong to the imaginative world of the farmer. It reaches back to the period of the hunter, to primeval times.

These Min idols are overlaid with various symbols of fertility and procreation. The repeated juxtaposition of male and female symbols points to an androgynous being. The name Min later became Min-Kamutef, the "Bull of his mother," which means he is her begetter. "The meaning of this begetting is self-creation. ... It signifies god as the first beginning in that god created himself and there was no one before him" (Bonnet, 1952, p. 364).

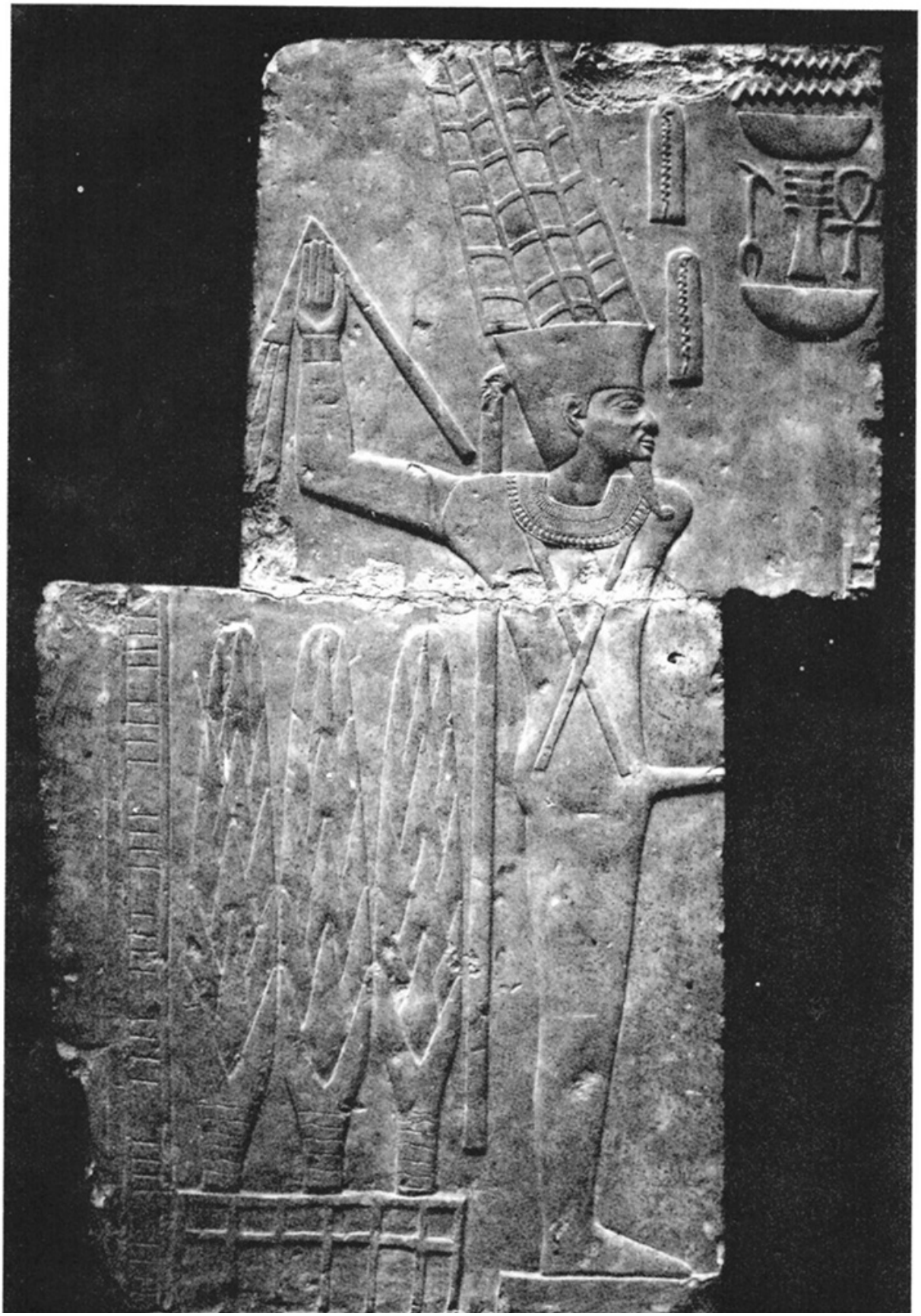
The priests of Heliopolis, in one of their accounts of the creator-god Atum, state that he formed Shu, god of the air, and his sister and wife Tefnut, goddess of the moisture, by masturbation (Pyramid Texts, §1248; tr. Mercer, 1952, III, p. 621). If one compares this myth with the posture of the archaic statue of Min, one perceives how Egyptian theologians were always concerned to incorporate age-old traditions into their system.

HEAD OF MIN, *fertility-god, belonging (according to Flinders Petrie) to the torso in the Cairo Museum. Coptos, Predynastic period*

STATUE OF MIN: *Large cupules on body, vulva symbols near base. Coptos*

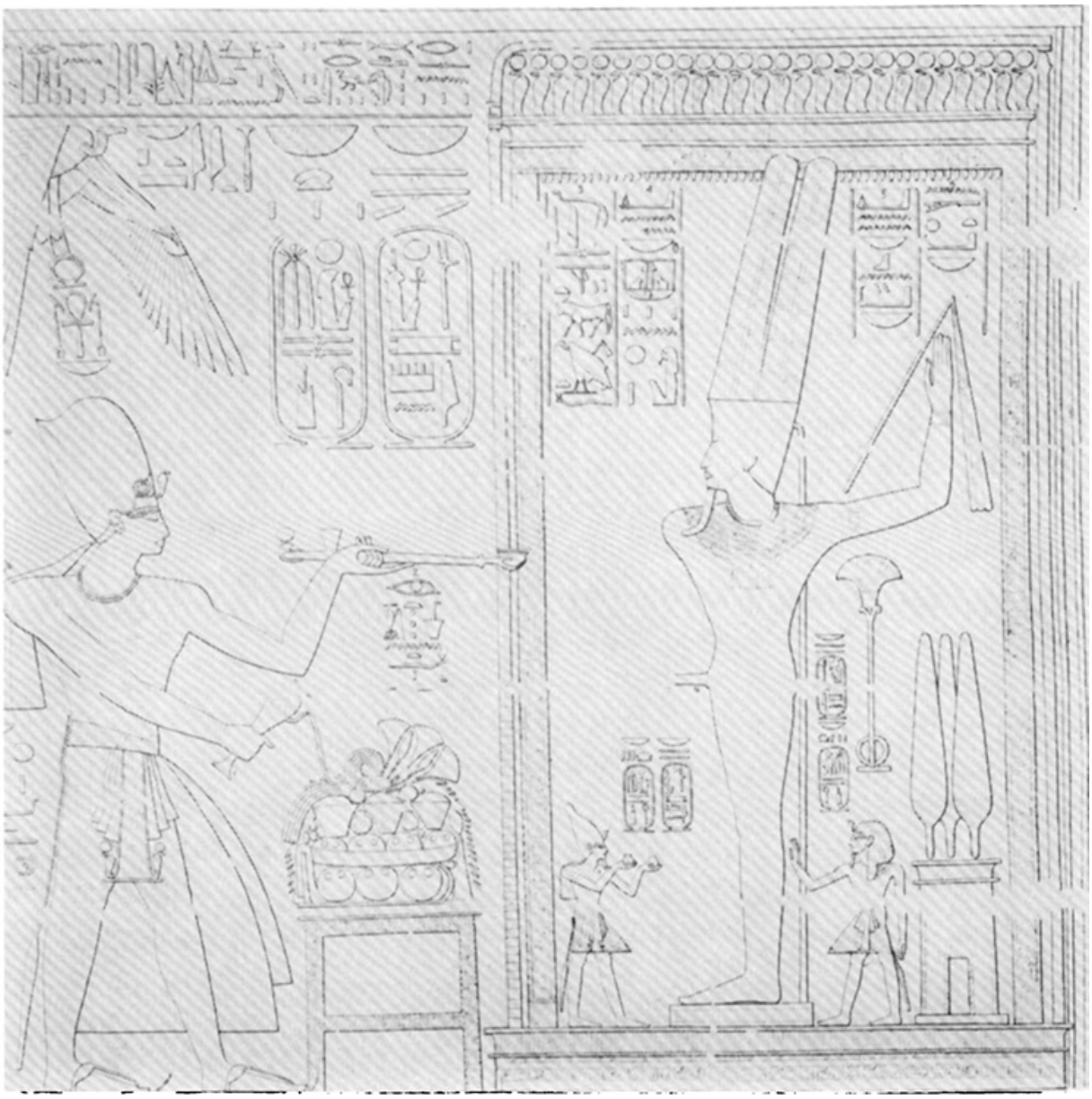


SYMBOL OF MIN: *A horizontal two-headed dart crossed vertically with an abstract feather, in relief upon the right thigh below the extended right arm. From Flinders Petrie*



RELIEF OF MIN *in characteristic attitude: Ithyphallic, one upraised arm and one leg. To his right, three large lettuces, symbols of fertility. From a Seventeenth Dynasty temple limestone block re-used in the temple of Tuthmosis III at Coptos*

Among the Min statues at Coptos, Petrie only found one head — now in the **84** Ashmolean Museum, Oxford. It probably belongs to the Min statue in the Cairo Museum. This head, with its indications of a beard, is not so damaged as it may appear. As in all prehistoric figures, the face probably never had any distinct features.



MIN AND RAMESSES III. *Medinet Habu, Twentieth Dynasty. From Nelson*

Min as god

1:217 ff In the case of Artemis Ephesia the transition was complicated, passing through many different stages. With Min it was simple. The primeval fertility idol was incorporated into the Egyptian pantheon, where he assumed the mummified likeness of other deities, in particular Ptah and Osiris. Both of these have certain connections with Min, Ptah as the god of creation and Osiris as god of vegetation. With Osiris this form is easily

understandable as a result of the fate he endured. Min, like all primeval idols, was without destiny. He stood alone.

His deified form was depicted according to persistent hieratic rules and remained unchanged up to the Ptolemaic period. Min, the earlier idol of procreation and of pervading procreative force, stood upon a pedestal, imprisoned in the wrappings of a mummy. This has sometimes been interpreted to mean that Min even as a corpse still possessed the power to create life (Bleeker, 1956, p. 49). But the enclosure of this idol from Coptos within the form of a mummy appears today more like a typical theological inversion.

In Min's deified form, only one foot and one arm are visible. The idol from Coptos had one arm pressed close against the side of his body. Now it has been **86, 157** jerked above his head. "The upraised arm in Egypt is a typical gesture of wargods" (p. 46).

Through the seeming absence of the other arm the figure appears mutilated. But it has been stressed: "It is certain that Min clasps the phallus with it" (p. 48).

Upon his head Min bears the divine emblem — two tall, upright feathers that strengthen still further his incorporation into the hierarchy of the gods.

Like the reliefs on the side of the Coptos statues, a palette from the Gerzean period, the final Predynastic stage, shows the symbol of Min in a simplified form: a horizontal, two-headed dart crossed vertically by an abstract feather (Massoulard, 1949, pl. LXV, 1). In the graves of Helwan this symbol of Min appears, carved out of ivory.

Min remained a stranger in the community of the gods of light, such as Horus and Isis, with whom he was sporadically associated. He remained alone until approached by the highest god, Amon, who first appears as the local god of Thebes in the Middle Kingdom. Amon assimilated Ra, the sun-god, and became Amon-Ra. Finally he assimilated Min, the ancient fertility-god from nearby Coptos; and even in the Twelfth Dynasty Amon had assumed an ithyphallic form so that he exactly resembles the god Min "and is treated exactly like him. . . . Behind him stand the same attributes: the curious conical pillar and the tree or lettuce plant. . . . The same ceremonies were performed before both gods: the offering of lettuces and the ladder. The same titles to address them: 'High with feathers' referring to the headdress, 'He with the uplifted arm' referring to the posture of the arm,

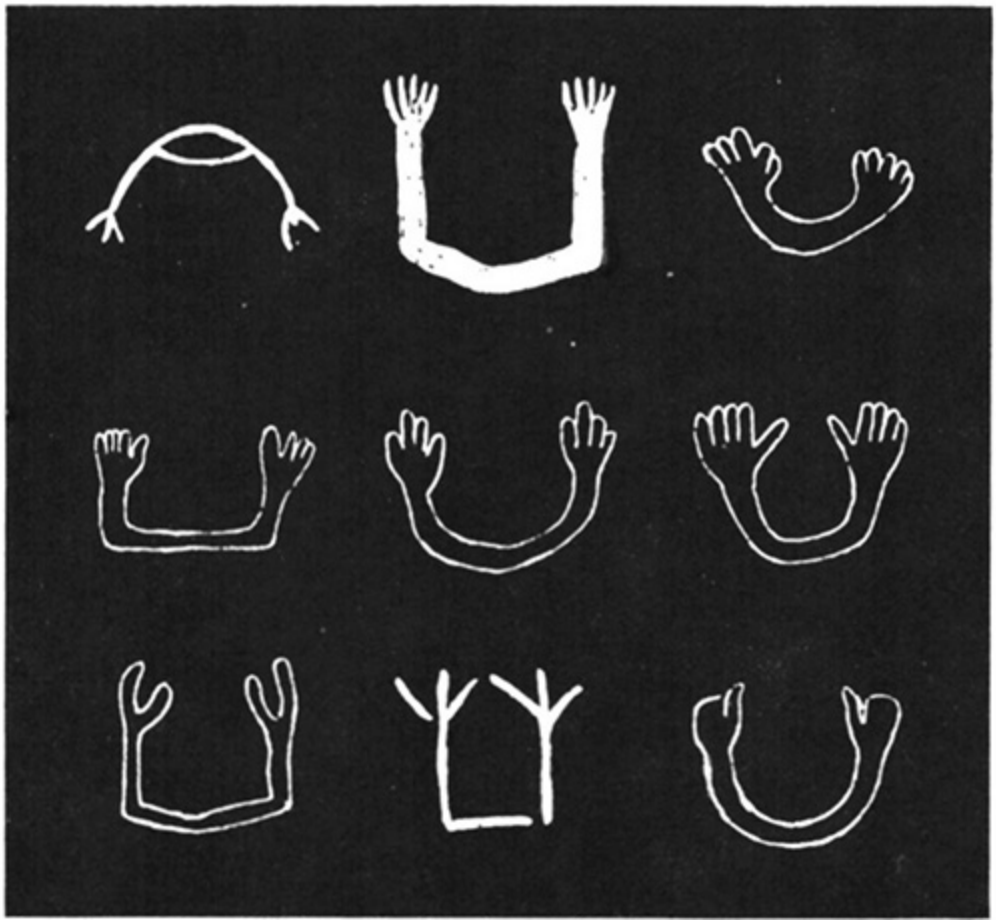
‘Whose beauty is admired’ referring to his erect phallus, and, above all, the most significant ‘Bull of his mother’ which expresses the self-genesis of the god” (Sethe, 1929, pp. 19-20). This was the moment when Amon approached so near to the ancient fertility-god that he completely took over his appearance, ‘‘so that he formed with him . . . but one and the same god” (Gauthier, 1931, p. xi).

THE KA AND PRIMEVAL CONCEPTS

There is a bridge to the religious concepts of primeval times where one would least expect it. This is the notion of the Ka, which was further elaborated by the Heliopolitan theologians and incorporated into their religious system. They complicated the theory of the Ka so much that it became ‘‘one of the most elusive problems” (Faulkner, 1955, p. 141).

The Ka played a dominant role among ideas relating to the spirit. Whenever the Egyptians came to formulate their thinking, they strove to find ways to approach the continuity of the life beyond from as many sides as possible: the mummified body, daily offerings and attention, and the reliefs and paintings in the tombs. The agricultural products and handicrafts depicted there were realities in the prehistoric sense: that is, they were active operating symbols and not **1:92** just remembrances of things past. The survivors had continually to renew exactly specified meals to ensure the well-being of the dead. Equally real were the *ushabtiu* — small, painted, mummylike figures which were buried with the deceased to serve him in the hereafter, to perform any heavy labors, or, if they were female, to supply sensual pleasures.

As a further assurance of the afterlife, the soul was split into seven species. Each had a special function. Among them two had the leading roles: the Ba and the Ka. The Ba comes nearest to our Christian individual soul. In the New Kingdom, the Ba soul was represented as a sinister bird with a human face and often with human hands. At the moment of death, this soul left the body in the form of a bird. It is depicted sitting on a tree and pecking at the fruits of the earth. The notion of the soul played a secondary role in Egypt.



KA HIEROGLYPHS: *Drawings of the earliest forms used. From H. U. Petrie*

MAN WITH UPRAISED ARMS: *This force-dispensing gesture is universal, from Scandinavia (cf. vol. I, fig. 63) to Africa. Hand-forged iron figure found standing in the ground before a tomb. Bandiagara (Mali), several hundred years old*

It is typical of Egypt that in the foreground should be not the personal, individual Ba soul but the Ka, which had a much wider cosmic significance. The concept of the Ka has interested Egyptologists in recent years, since it is seen as a key to the nature of Egyptian religion. In apparent agreement, the Ka is interpreted as a kind of "vital force." "The closest approximation to the Egyptian notion of the Ka is 'vital force.' . . . The Ka, according to this view, should be impersonal and should be present in varying strength in different persons" (Frankfort, 1948, p. 62). It is a cosmic, divine force — a force which emanates from the god and which was serviceably built into the new social hierarchy. The king, at the summit of the hierarchy, received the Ka from the sun-god. He was the possessor of the Ka, which he then dispensed to the people. Through the Ka, the king was the human manifestation of the god (Greven, 1952, p. 33). "The Ka is not only a divine force which relates the king with his ancestors and with the deity, but it also relates the people with their ruler, and through him with the godhead" (Jacobsohn, 1939, p. 60).

The Ka was a vital and invisible force. How should it be transferred from the god to the king? The force-bestowing manual gesture appears strongly on a Swedish rock engraving of a demon or a god with upraised arms. The relation **1:117** of this primeval gesture of the outpouring of vital force by the overdimensioned hands, and the closeness of its meaning to the primitive Ka hieroglyphs of the First and Second Dynasties, has been suggested in *The Beginnings of Art.* The **1:115 ff** gesture is universally found from Scandinavia to the heart of Africa, where a wrought-iron figure of relatively recent date still shows the same upraised and **left** overdimensioned hands.

The Egyptian hieroglyph for the Ka consists of two upstretched arms with outspread fingers. It has been suggested that this hieroglyph is similar to another which signifies “to encompass, to embrace” (Kees, 1956, p. 44), and which indeed appears the same, only in a reversed position. The strength-giving power of this gesture of the upraised arms goes back to prehistory, and is still preserved in the crude hieroglyphs of the First Dynasty. It shows how the divine **left** power was transferred. The friendly gesture of the embrace has never been presented with so many shades of meaning, so forcefully, and so frequently, to bring out the close relations of man to man and man to god.

The one who is transferring the Ka lays his arms from behind upon the one who is to receive it, as, for example, the falcon-god Horus lays his wings upon **left** the shoulders of King Chephren, possessor of the Ka. “The transference of the Ka was called by the Egyptians ‘to protect’ ” (Spiegel, 1953, p. 113, par. 165).

HEAD OF CHEPHREN *embraced by the wings of the falcon-god Horus: A gesture simultaneously transferring the Ka and protecting the king. Fourth Dynasty*

SESOSTRIS I AND PTAH: *The god embraces the king at his jubilee (Heb-Sed) festival to invest him with renewed powers of life. Relief from fragment of a pillar from Sesostris' jubilee temple. Middle Kingdom*

The embrace of a god does not always signify transference of the Ka; it can also mean giving or renewing strength and power. On a fragment of a pillar of the jubilee temple of King Sesostris I, Middle Kingdom, discovered buried in the foundations of a pylon, the god Ptah embraces the king at the time of the **left** Heb-Sed festival, and invests him with the renewed power of life and strength which was the inner meaning of this jubilee festival.

The conception of the coming of the Ka from the god must have made a great impression on the Egyptians. Recall the relief in the Birth Room of the temple **49** of Luxor depicting the ram-headed god Khnum with a potter's wheel on which he models two figures: the unborn king, Amenhotep III, builder of Luxor, and his invisible double, his Ka. Ursula Schweitzer — a Basel Egyptologist who died too young — took the scene, of which this is only a fragment, to have wider implications, in that the queen first brings the Ka into the world and after that her son (1956, p. 63).

The richest insight into the mysterious changes and wanderings of the Ka concept has been given by Schweitzer. On the basis of Maspero's famous theory of the Ka as "a second exemplar of the body, of less dense matter than the matter of the body" (Maspero, 1878, quoted by Schweitzer, 1956, p. 13), she traced the development of the Ka concept beginning with the First Dynasty.

From the Middle Kingdom, in the Twelfth Dynasty, there is a rare wooden statue of King Hor, found near the south brick pyramid of Dahshur.

The king stands in his naos (chapel), bearing the Ka hieroglyph on his head. It is a Ka **94** statue, since the king is naked.

Mortuary statues were closely related to the Ka: “The Egyptians did not consider mortuary statues just as likenesses of the dead. They were existentially connected to the dead through the Ka” (Greven, 1952, p. 32). It was not the mummy but the mortuary statue which possessed the Ka. The continuance of life after death was largely assured by the bearer of the Ka — the mortuary statue. For this reason there were often many of these, and they were carefully protected in the serdab, or statue chamber, which was usually “connected with the outer world by a slit through which incense could be dispensed” (p. 33).

As a preparation for the reception of the Ka there was the so-called ceremony of the “Opening of the mouth,” such as occurred in the valley temple of Chephren. Even today it is thought-provoking to see, through the narrow slits of **290** the stone wall, how the eternally vigilant mortuary statue of King Zoser sits waiting for his Ka to return to him.

HOR WITH KA HIEROGLYPH: *The king stands in his naos bearing a Ka hieroglyph on his head. Wooden statue. Middle Kingdom*

In this belief another significant primeval conception lies hidden: symbol and reality are synonymous.

PART III CREATING AN ANTHROPOMORPHIC COSMOS

To gain insight into the formation of the anthropomorphic world of gods one must make careful use of the word “deity.” This term is often used loosely and unclearly.

In prehistory there were no gods. When human figures were represented, they were fertility symbols. This may be the chief reason that female figures **1:434 ff** were usually shown pregnant and with exaggerated breasts, buttocks, and sexual triangle. In Sumer, Egypt, and elsewhere, toward the end of the prehistoric era, a more slender female type slowly began to emerge, but it retained the traditional emphasis on the sexual triangle. The relatively few male figures **1:204 ff** in prehistory were mostly shown as ithyphallic, also expressing the desire for fertility and procreation.

The prehistoric female fertility image has been called by a variety of names: idol, earth mother, Great Mother, and also *grande déesse* or mother-goddess. This vagueness can easily lead to confusion. Through the tens of thousands of years from the Aurignacian-Perigordian era to the dawn of systematic agriculture in the Middle East, female figurines appear, always modeled with stress on those parts most important for reproduction. These are magic images of wish fulfillment — fetishes, some would say — and their purpose is to procure fertility. They have no deeper meaning, any more than have the engravings on bone or cave wall of ithyphallic men, sometimes alone, sometimes following a female. They are earth-bound. This fundamentally sets them apart from the god concept evolved at the beginning of the historic era, or possibly shortly before.

Everything indicates that the religious notions of prehistory never freed themselves from the earth, but were concentrated upon facilitating entry and re-entry into an earthly existence in which no distinction was observed between man and animal.

The gods of the pantheons were quite otherwise. Each possessed a clearly outlined physiognomy, had particular tasks or attributes, bore a name, entered into relations with other gods, and was part of a patriarchal family with a dictatorial ruler at its head. Prehistory’s crude hankering after fertility and procreation had given place to an organized ruling household. The ever-increasing host of gods and their assemblies, especially in Mesopotamia, have been likened to a parliament.

The decisive change that came about with this creation of undying gods with human forms was their transference into the cosmos. This transposition is of fundamental significance for the further development of religious thought. It was the starting point for all later religious systems, with their increasing emphasis upon the transcendental factor.

In a certain sense, the religion of the first high civilizations represents a transitional stage. The deity is still to some extent earth-bound: he can take up his abode temporarily in dwellings created especially for him.

The Sumerians built their god of the deep waters a palace of lapis lazuli at Eridu. In this temple at the summit of the ziggurat occurred the sacred coupling. This ritual has had a long survival: even to this day, the Sultan of Surakarta in Indonesia must ascend a tall tower for his ritual marriage with the Queen of the Sea.

In Egypt, the pyramidion at the peak of the obelisk was the abode of the god **448** or, like Amon at Karnak, he lived in his cult figure in the dark cell of his temple. Yet he could come and go, and was able to undertake journeys. His real home was the cosmos.

This cosmic transfiguration induced a powerful upsurge in imaginative thought, and gave rise to questions which have not yet ceased to disquiet mankind. There is the eternally unsolved cosmogonic question: how and by whom was the world created? There are also cosmologic problems: what are the relationships between the earth, the heavens, and the heavenly bodies, and what order do they obey?

TEMPLES WITHOUT IMAGES

One continually comes up against the inner difficulties that must have beset the human spirit in the anthropomorphic representation of the newly created gods. They are evidenced by the absence of images of the deity in the earlier temples. In the temple strata of around 3000 B.C., no anthropomorphic statues of gods were found. This cannot be ascribed to chance, especially in Mesopotamia, where the early stages of development are more easily followed and compared than are those of Egypt.

There it is as true for the north as for the south, where the sixteen levels of Eridu, from the fifth millennium until the building of the ziggurat around 2000 B.C., yielded no trace of any representations. The altars were bare. Only in one of the upper levels was a temple found with its floor covered with fishbones that hinted at the possible existence even then of Enki, god of the deep waters, to whom the famous ziggurat was later erected. The same phenomenon can be observed in the north. It is true that the twenty levels of Tepe Gawra disclosed numerous female figurines of clay (fertility symbols), as well as sacred vessels, but no trace of the statue of a god.

There are many other instances, but the most outstanding is the religious center of Uruk (the Biblical Erech). In the highly developed temple complex from its peak architectural period (Uruk IV), the excavators indicate the different temples simply by letter — *A, B,* C, D — for there is nothing to indicate consecration to any particular god.

Altars without gods, veneration of a featureless supreme being, existed even in Greek civilization. K. Schefold (1959, p. 128) notes that in Olympia there was no statue of Zeus except in the classical temple, and that the famous late-Hellenistic Zeus altar at Pergamum (ca. 180-160 B.C.) bore no cult statue of the god. The podium of the altar remained bare.

A reluctance to represent the supreme being in human form is easily understandable. Apart from a natural diffidence about presenting the godhead as analogous to man, which also occurs in later religions, there was at that time a further obstacle: the veneration of the animal that had occupied the forefront of man’s sentiments since his earliest beginnings.

The archaic civilizations displayed a certain diffidence in the representation and exposure of their deities. Generally they were personified in connection with the god-king, sometimes as reliefs, more rarely as sculptures in the round. The legitimacy of the Pharaoh as god-king appeared most distinctly, and comparatively **469** late, in the triad groups of King Mycerinus of the Fourth Dynasty, where the god-king alternated with the great protective goddess Hathor as the central figure. These sculptural groups had no continuation. In the New Kingdom their place was taken by large colored reliefs, such as those of Sety I at Abydos. The divine origin of the ruler was also stressed in the New Kingdom by the intercourse of the queen with Amon-Ra, who approached her in the shape of the king (reliefs in Hatshepsut's mortuary temple at Deir el Bahari and **137** Amenhotep Ill's Birth Room in the temple of Luxor).

Statues of deities in human form were not exposed even in the New Kingdom. Although colossal statues of the ruler were placed in a most conspicuous position before the pylons, the gods themselves were represented there only by symbols **375** — by the age-old sacred posts, now grown to monumental masts, and the obelisk **380** as seat of the highest god. A colossal statue such as that of Athena Promachos on the Acropolis, whose golden spear-tip flashed rays seen by ships at sea, would have been unthinkable in the archaic civilizations.

FROM MASKS TO THE HUMAN COUNTENANCE

The religious structure of the first high civilizations was founded upon the discovery of the human form and the human face. Without this, its entire edifice could not have been built up. Only after man had begun to consider himself beautiful could his own image be used as a model for the object of his worship. Only then could eyes receive their glow, the mouth its attraction, the figure its grace.

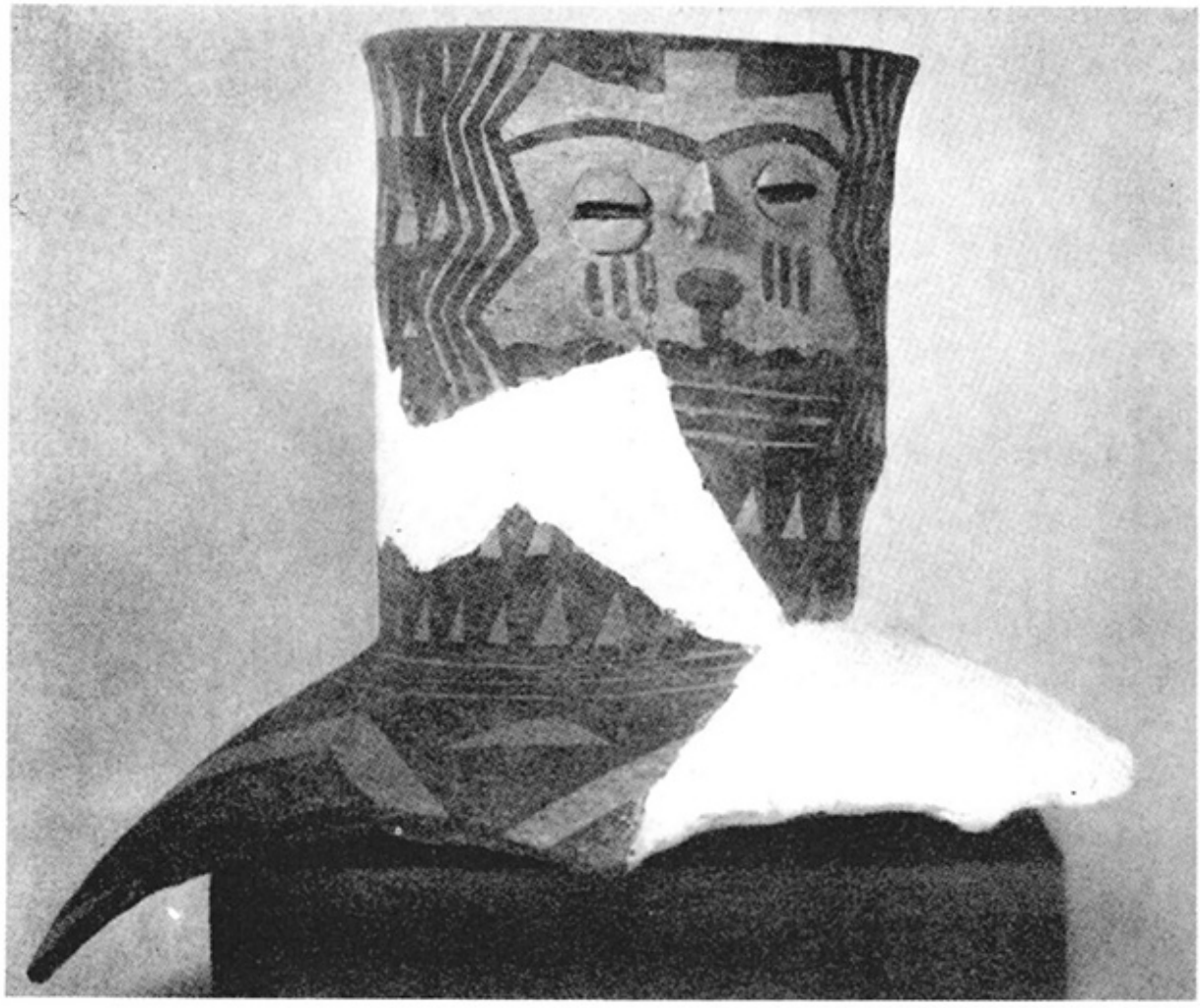
For this to occur, the primeval conception of man as inferior to the animal had first to be overcome. Previously, male and female bodies had served only as fertility symbols. With a few rare exceptions the face was hidden, or merely **1:487 ff** indicated. It was shown clearly only among hybrid creatures with a human body and an animal head, such as the shaman in the cavern of Les Trois Frères (Ariège).

What are today called masks were, for primitive and primeval man, a means of transformation into another being, another nature, and a means of contact with supernatural powers. In this roundabout way, fragments of the human face were allowed to appear. Masks led to the unveiling of the human countenance.

The masked face from Hassuna

Hassuna, in northern Mesopotamia, is one of the earliest known settlements; it throws much light on village culture during the transition from the neolithic period into the age of copper. But there were extraordinarily few representations of human beings. Seton Lloyd and Fuad Safar, who with the greatest care excavated the seven-meter strata in 1943-44, noted that "apart from a female **100** face modeled and painted on a Samarran vase" all representations were "crude and rather incomprehensible unbaked clay figurines of the primitive 'mother-goddess' **74** type" (1945, pp. 262-63). The vase fragment came from one of the deepest strata (level V), and thus from the copper age. Further, it was brought into the village from cultivated Samarra.

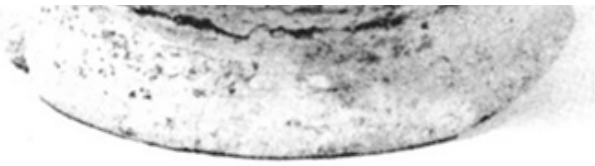
Beneath meeting eyebrows, the slightly protruding eyes, round as marbles, have elongated slits such as are usual in masks. Upon each cheek are three vertical strokes or tattoo marks. The sides of the face are lost amid parallel zigzag vertical lines; the lower part is crossed by three parallel horizontal lines. The remaining space is filled by black triangles, their points directed downward. Triangles, like those scratched on the earliest urns from Hassuna, appear to be an age-old symbol for the promise of future life: a triangle with “the apex pointed downward signified the female" (Stone, 1927, p. 5).



MASKED FACE *modeled and painted on neck of vase. From level V, Hassuna* (*northern Mesopotamia*). *Early fourth millennium*

GOLD PENDANT AS FERTILITY SYMBOL: *Vulvalike form, with sketchily indicated breasts and navel but oversized sexual triangle. From El Ajjul* (*Gaza*), *Late Period*

Kish 1912 B
1925-211



FEMALE FIGURE ON JAR HANDLE: *Face and body reduced to the utmost, but enormous sexual triangle hatched below handle. Buffware pot from Cemetery A, Kish (Mesopotamia*). *Fourth millennium*

In nearly every grave of Cemetery A in Kish, a handled jar was found: "No **101** less than three specimens were found in burial 40" (Mackay, 1929, p. 142). The handle takes the form of a mother-goddess. Face and body are reduced to the utmost, only eyes, nose, mouth, and the small breasts being shown. "Sometimes . . . the eyes and breasts also have the pupils and nipples indicated" (p. 145). Immediately below the handle is an enormous triangle with herringbone hatching. Its size, in comparison with the rest of the figure, stresses its significance upon these mortuary vessels. Upon the shoulder of the jar, above the projecting beading common in vessels of this type, two concentric rows of hatched triangles reinforce this significance. The oldest pottery from Hassuna also has a row of triangles, but they are vertically disposed upon its body.

This fertility symbol lived on through long ages. Gold pendants from a late **100** period found in El Ajjul, Gaza, "indicate by breasts, navel and vulva sketchily added to the Hathor head a gradual development from the symbol to the anthropomorphic idol of a mother-goddess" (Barb, 1953, p. 200).

The female face from Uruk

Almost a millennium lies between the masked face from Hassuna and the female **104** head of translucent alabaster from Uruk. This sculpture was found, almost uninjured, by H. Lenzen's expedition in 1939, its face turned upward amid the rubbish from an early Jemdet Nasr building. It therefore stems from the beginning of the third millennium. There is nothing else like it from this period. The gypsum heads found in Jericho, from much earlier, cannot be counted as works of artistic expression.

The appearance of this almost life-size face at so early a period is like the bloom of a miraculous flower. Such perfection is not attainable without antecedents, but these are hidden from us. Suddenly it presents what had till

then not existed — the gentle charm of a human countenance: a perfect oval, a harmonious accord of brow, cheeks, and chin — delicate but tense — and expressively sensitive closed lips.

Lenzen gives this description: “The eyebrows repeat in the beautifully arched lines the almond-shaped, incised eyes and grow together above the indented root of the nose, conforming to the Sumerian ideal of beauty” (1939, p. 85).

What does this portrait signify?

There is nothing to indicate that it is the likeness of a goddess. As Lenzen perceived, the head is “far removed from supernatural godlike features" (p. 86). Not a goddess, but probably — as in prehistory — a medium between man and the unseen powers is here represented, in the form of a priestess who personifies, in her entire bearing, the highly bred product of a city culture.

The head is not the remnant of a statue, for the back of it is flattened. Almost simultaneously, another marble head was discovered, in Tell Brak in northern Mesopotamia, which belongs to the same period and of which the back part is also lacking (*Illustrated London News,* May 20, 1939, p. 883). The neck of the Tell Brak head is elongated and becomes thinner at the base, a sign that it too is an isolated head and not part of a statue. Its masklike character is especially clear in its abstract ears, incised eyes, slanted and oversized, and puffed-up lips.

A comparison of the two heads but confirms the uniqueness of the lady of Uruk: over her face lies quietness.

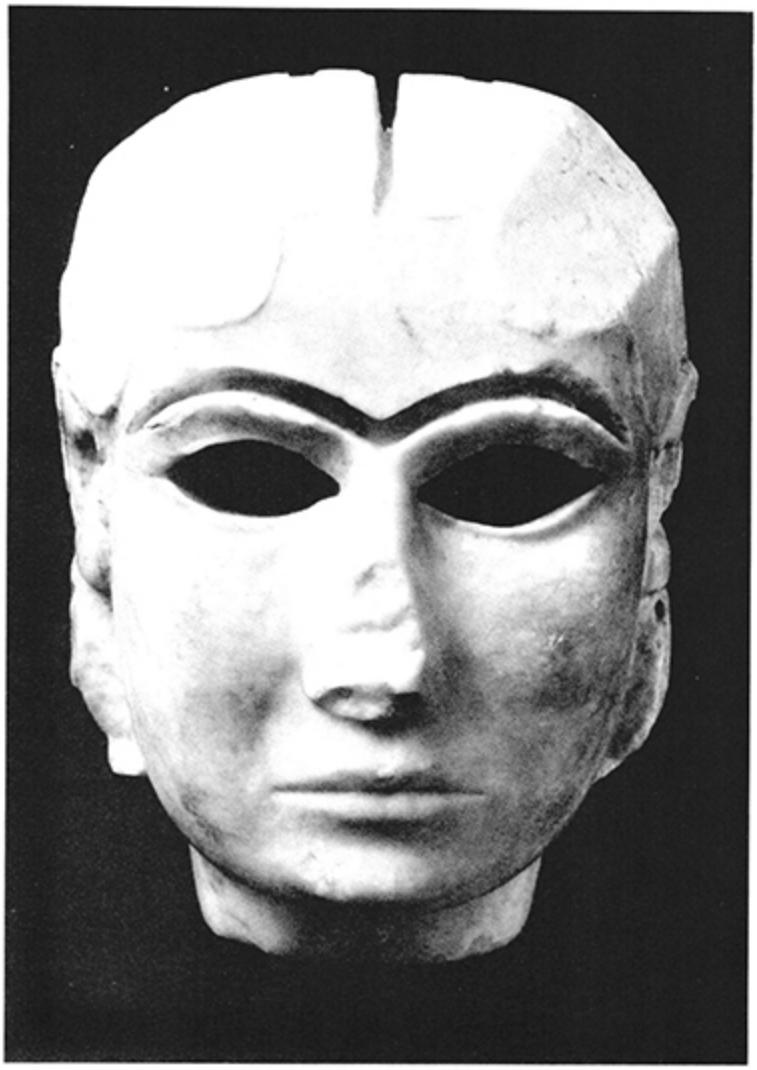
The mouth

The shimmer of melancholy and tragedy that hovers over the face from Uruk loses nothing by comparison with a fragment of a female head from the Eighteenth **105** Dynasty, but between them lie about fifteen hundred years. The tremendous distance covered in the artistic conquest of the human countenance by the time of the New Kingdom is fully expressed in this fragment of a head of Nofretete or Queen Tiy (Hayes, 1959, II, pp. 259-60). Its immediacy and its attempt to come as close as possible to naturalness — closer than in any other period in Egypt — are typical of the short Amarna period. Though the fragment is carved from one of the

hardest of stones, yellow jasper, it is vibrant with life. Once tightly pressed lips have become warm and rounded. Their sensual moistness is even more pronounced in this fragment than in the famous Nofretete head now in Berlin.

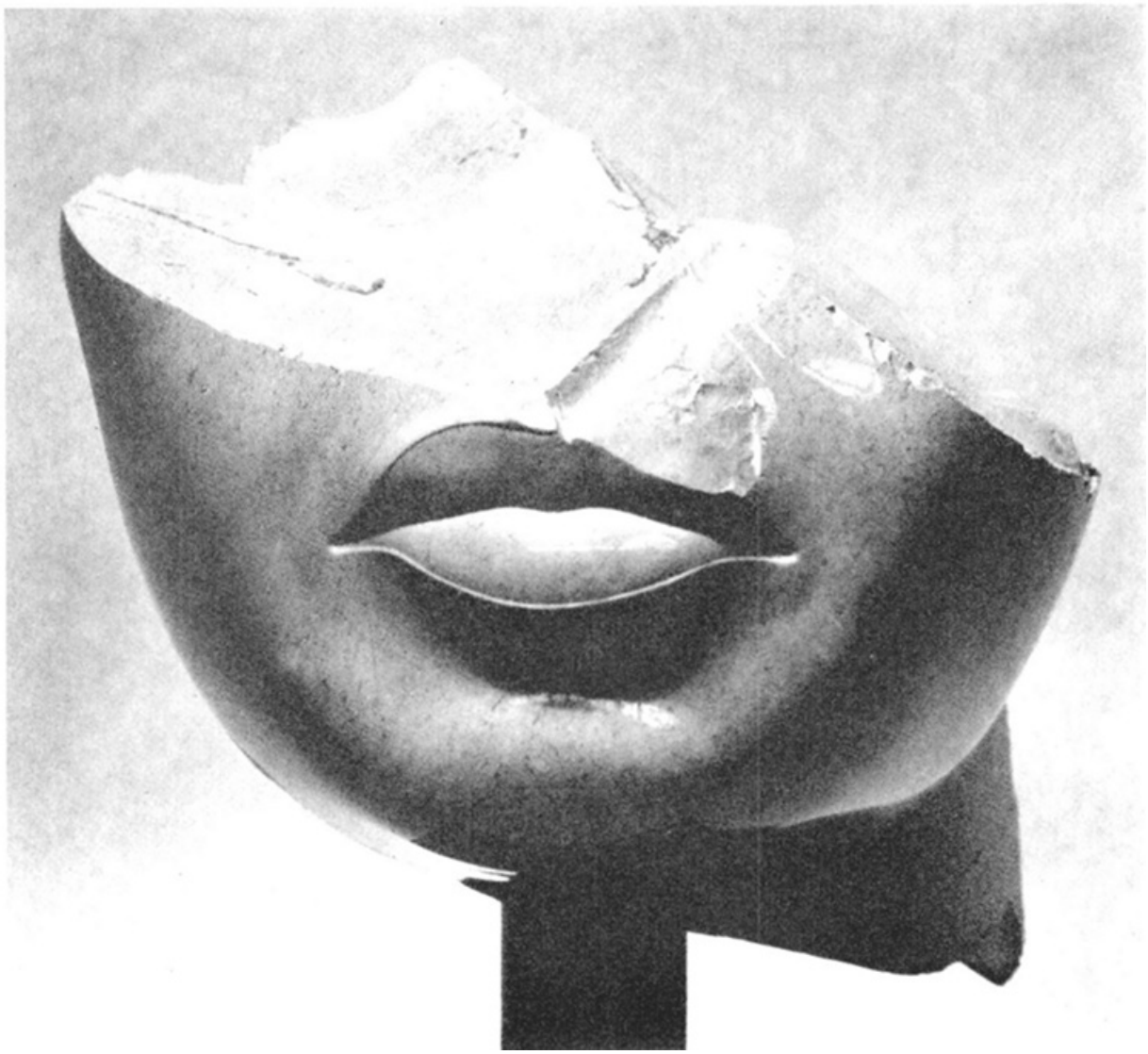
The eyes

Accentuation of the eyes plays a prominent part in giving life to representations of the human countenance. This did not exist in primeval sculpture. Later, full of the delight of new discovery, sculptors gave eyes unusual vivacity through inlaid color, as in the Uruk head, or the oversized hypnotic eyes of the statues of Tell Asmar.

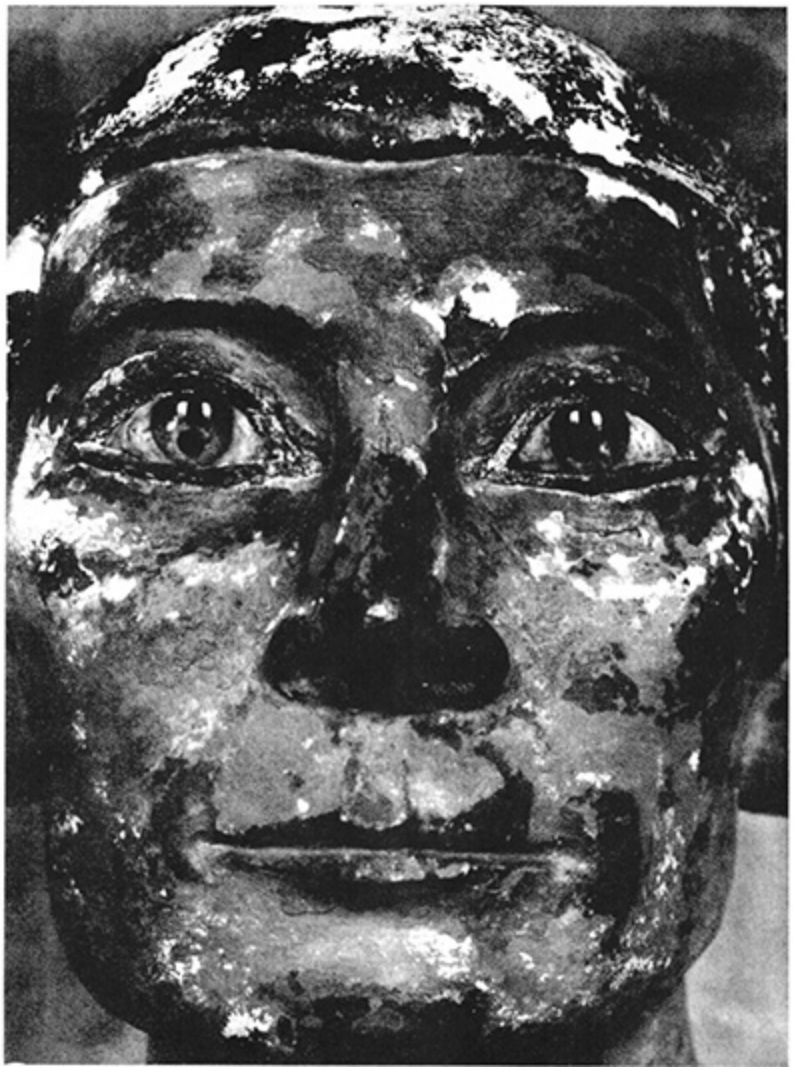


FEMALE HEAD *almost life-size: First appearance of the gentleness of the human face, though still somewhat masklike. The features are somewhat flattened, and the sides of the cheeks are almost at a right angle to the frontal plane. White marble. Uruk, early third millennium*

In the famous limestone statue in the Louvre of a scribe from the Fifth Dynasty, **106** everything is concentrated upon the eyes. The scribe sits naked, with folded legs, his body held stiffly upright. His eyes, of alabaster, black stone, silver, and crystal, stare penetratingly into the distance, as though alert to receive a message from eternity that must be transferred immediately to the papyrus roll spread out upon his lap. It has been suggested that the figure may represent the governor of a nome: a nomarch.



MOUTH OF NOFRETETE OR QUEEN TIY: *In the fifteen hundred years between the Uruk head and this fragment with its rounded cheeks and sensual lips, human beauty was both discovered and conquered. Yellow jasper. Amarna period, Eighteenth Dynasty, fourteenth century* B.C.



FACE OF THE LOUVRE SCRIBE: *This famous polychrome statue is naked, a papyrus roll on its lap. Emphasis is concentrated upon the strongly modeled head and, above all, on the brilliant crystal eyes staring into the distance. Fifth Dynasty, third millennium*

THE DISCOVERY OF THE HUMAN BODY

As Egypt became conscious of its artistic powers, which had slumbered below the surface for so long, the Sumerian prelude began to pale.

The decisive event was the discovery of the human body. First steps were sculptures such as the Ka statue of King Zoser, of the Third Dynasty, the reliefs **291** of him in his underground chambers at Saqqara, and those of Hesy-ra of the **267, 169** same dynasty. From the standpoint of the plastic treatment of the body, a great distance divides the Zoser statue from that of Chephren, of the Fourth Dynasty, in which the bodily structure is forcefully displayed.

Under Mycerinus, a generation after Chephren, realization of the plastic qualities of the female body awoke, and with this a desire to give sculptural expression **469** to the great intensity of its perfect interflow of forms. From this time on, the female body remained among the highest goals of sculpture. We have no measure of what this daring manifestation meant to the people of the Fourth Dynasty.

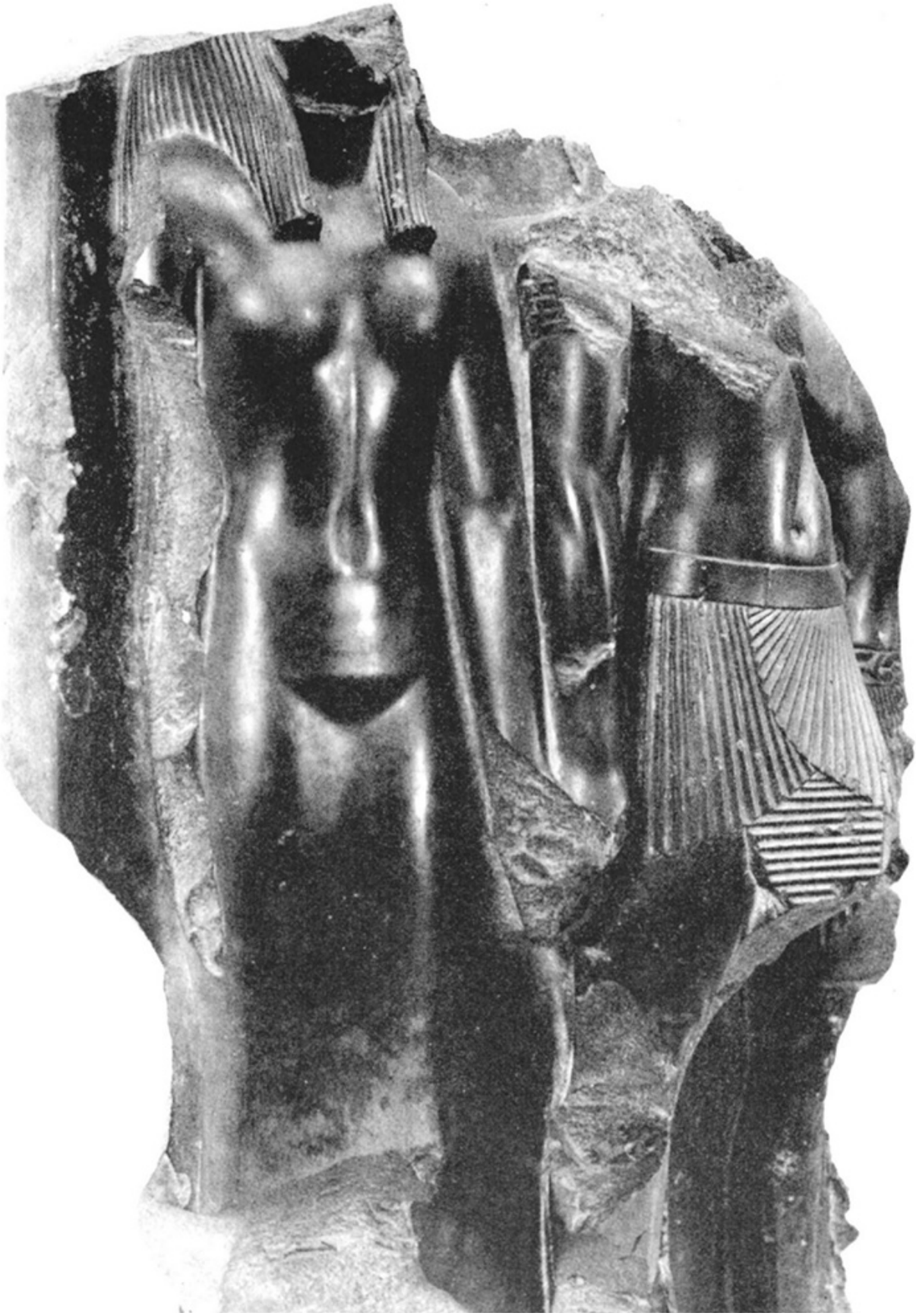
Female beauty manifested

The sculptural groups of King Mycerinus, standing with the goddess Hathor on his right and a god or goddess of one of the nomes on his left, offer the best insight into the discovery of female beauty. G. A. Reisner unearthed several of these triads from the rubble of Mycerinus' valley temple at Giza in 1908-10. The four groups which could be reconstructed — others remain as fragments — are in the museums of Cairo and Boston. The large group in Cairo will be con- **468 ff** sidered later from another point of view. Here we are concerned with a highly original aspect of these sculptures — their plastic treatment of the female body.

Gaston Maspero was Director General of the Service des Antiquités at the time they came to light. With French subtlety, he at once recognized their artistic finesse, observing that the sculptors "who executed the schists were much more skilled" than those who worked in alabaster (tr. 1913, p.

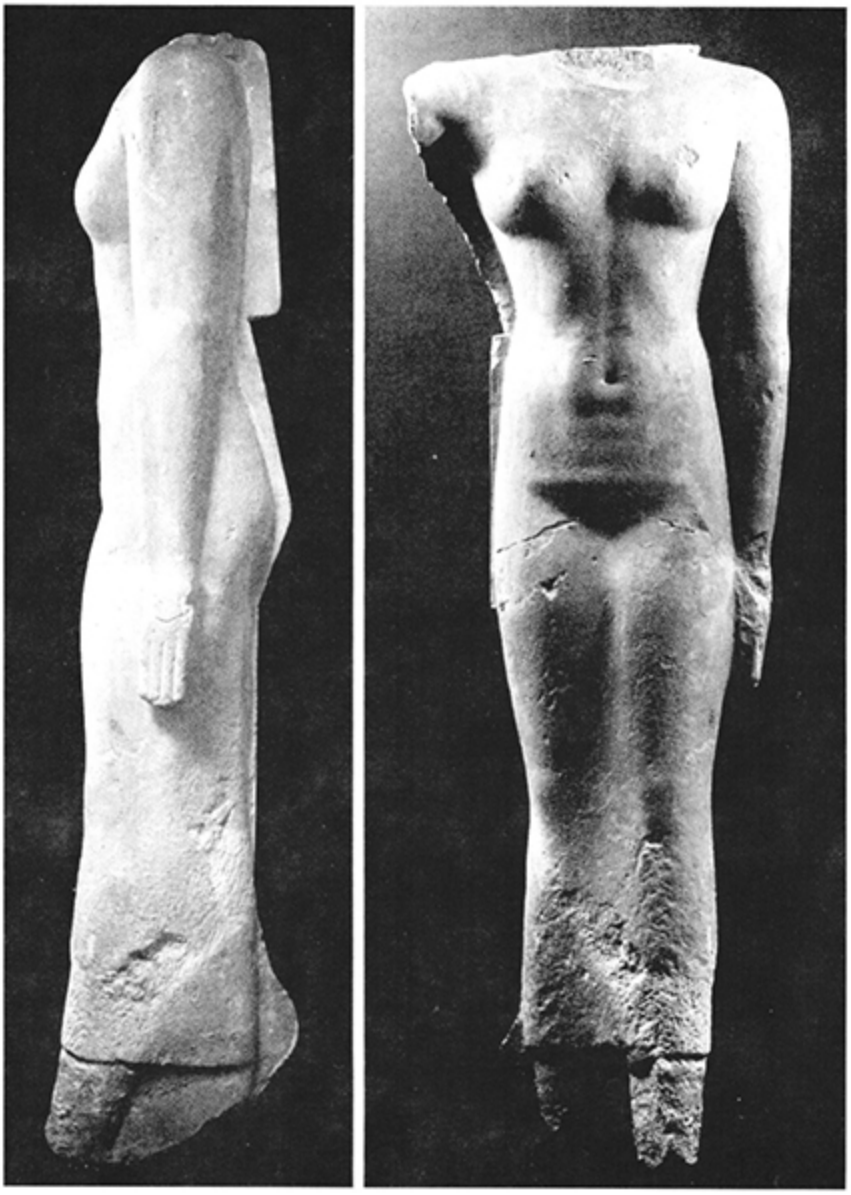
48). Maspero stressed the mastery of the artist who could handle such an “ungrateful material’’ as schist “with the same suppleness as if he had been kneading the most ductile clay’’ (ibid.).

He recognized that “the women are especially remarkable with their full round shoulders . . . the belly strong and well designed, the thighs full and graceful, the legs vigorous, one of the most elegant types created by Memphian Egypt" (ibid.). But these figures were not merely elegant and graceful, they were the first appearance of female beauty in art.



FRAGMENT OF MYCERINUS TRIAD: *Slate stele* (*80 cm*.) *with the goddess Hathor, King Mycerinus, and a badly damaged male god* (*not shown*). *From Mycerinus' valley temple, Giza, Fourth Dynasty*

GODDESS HATHOR: *Detail of fig. 56. One of the earliest representations of female beauty. The human body has become a dignified vehicle for a deity*



TORSO OF A WOMAN: *Two views of life-size figure forming part of a family triad. From Fifth Dynasty tomb of Ra-wer, Giza*

Fragment of a Mycerinus triad

In the complete groups, attention is quickly absorbed by the heads — the faces, the heavy wigs, and Hathor's headdress with the sun disk between her two **469** cows' horns. In the fragments, these involvements with contemporaneousness are banished. Nothing distracts attention from their timeless aspect — the plastic **109** mastery of the female figure.

The last century did not lay much value upon fragments. Like a broken teapot, each statue had to be made complete. Today there is a different attitude. The intensity contained in a torso has been revealed to us by a long line of sculptors, from Maillol and Rodin to Lehmbruck, Brancusi, and Arp. The Hathor fragment described below fully achieves what Maillol always sought in studies of the human body: the harmony that exists in the interplay of the body's architectonic and surface tensions. That this should first have been represented in the period which built the pyramids is not surprising.

A fragment of one of the Mycerinus triads, among the most beautiful Egyptian sculptures in existence, was recently brought from the study collection of the Museum of Fine Arts in Boston to the exhibition hall, through the initiative of W. S. Smith. It is of greenish-black slate, eighty centimeters high, and has been described by E. L. B. Terrace (1.961, p. 41).

Only part of the king's body remains — a strongly modeled, forward-striding **108** central figure. His left-hand companion is also greatly damaged. But by grace of chance the body of the goddess Hathor is preserved intact. Head and feet are lacking. This brings out even more strongly the quality of the torso, the masterly combination of bold, curving outlines and careful treatment of detail.

The broken cylinder of the neck is framed by the ends of Hathor's wig. Her **109** shoulders take on a gentle curve. The line of the left one runs into her loosely hanging arm, whose hand once held the right hand of the king. Her arms arc clearly separated from the body. The outline of the torso flows unbroken from below the shoulder joint to below the knee. The hips are barely indicated.

The body details are molded with similar subtlety. Plastic modulation is concentrated upon the torso, the forms purified through a slight process of abstraction. The full breasts protrude as hemispheres, free of naturalistic details. A deep groove runs vertically upward from the navel, ending between the breasts.

The group was once polychrome. But in its present state the light that glides over this Hathor figure shows even better the delicacy of the sculptural treatment. Although the goddess is clothed in a long garment her body appears nude, since it shines through the close-fitting fabric as through glass. Even the skin becomes a transparent membrane. A gentle hollow marks the end of the torso, and the muscular parts of the belly are

made visible by slight horizontal undulations. Every inch pulsates with vitality. A body made for procreation has become a beautiful and sacred vessel for the incarnation of a goddess.

Torso of a woman

110 Close kin to the Hathor figure in the fragmentary Mycerinus triad is a life-size figure made of Tura limestone, in the Worcester (Mass.) Museum (Cott, 1935-36, p. 17). It has been tentatively established that the piece comes from a family group taken clandestinely from a tomb at Giza (Cooney, 1945, pp. 54-56). Other figures from this group are in the Brooklyn Museum and in Kansas City.

Outlines and body modeling are very similar to the Hathor fragment, though not quite its equal in subtlety. This may be partly because the workmanship of Fourth and Fifth Dynasty sculptures was less perfect in alabaster and limestone than in harder stones like schist and basalt (Maspero, tr. 1913, p. 48).

The stance is the same. Although the position of the left leg hints at a forward movement, it is overshadowed by the quietude that radiates from the clearly symmetrical structure of the figure, with its unalterable interplay of simple organic forms.

Nothing in these aristocratic bodies reminds one of the animal-like prehistoric fertility figurines or idols. A new ideal female form arises here for the first time, never later to be abandoned: the representation of woman at the peak of her youthful beauty.

This radical transformation had far deeper roots than a mere change in erotic taste. In primeval times all interest was concentrated upon the reproduction of the species, alike of animals and men. In highly civilized Egypt another demand attained supremacy — the desire to live on endlessly, in perpetual youth. In other words, the female nude was without erotic significance both in prehistory and in the first high civilizations. The change began in Greece. Before that time the female body was a container either of fertility or of the imperishable youthfulness of the hereafter.

One small inheritance remains from prehistoric tradition: the care with which the belly region is indicated, with its typical accentuation of the sexual triangle, common to all fertility idols from Aurignacian times

onward. In Egyptian statues, the shape is usually marked by a slight horizontal ridge.

The pyramid age was, during the Fourth and part of the Fifth Dynasty, an age of sculpture. At the time of Mycerinus, Egyptian sculpture showed a momentary interest in the highest form of plastic expression — sculpture in the round. It would seem but a moment to the Greek development of the fifth and fourth centuries B.C. But this was not the direction taken by Egyptian sculpture. It remained bound to the stone. **148 ff**

The human body in Sumerian sculpture

In seeking to know how the nude body was handled in Sumer, one searches in vain for a representation of the Sumerian goddess of love, Inanna, that could in some way serve as a parallel to the Hathor figure.

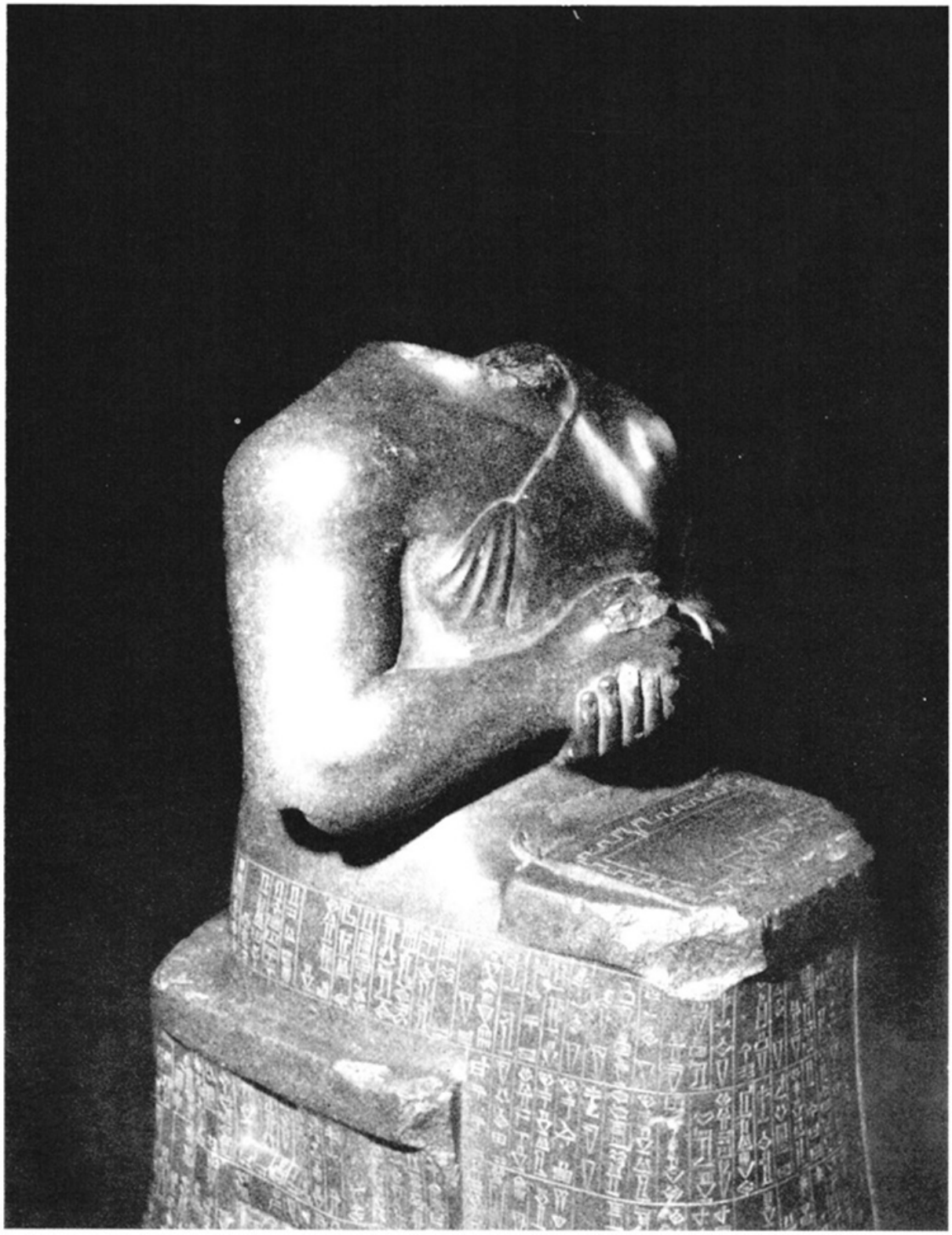
Sumerian priests stood naked before the deity. They had to be handsome and well built. One could imagine that this religious background would engender an **115, 120** interest in mastering the representation of the human body. But it did not occur. The tendency was, rather, to conceal the body within long, bell-shaped, kilted **123** gowns. The upper part was still naked in Early Dynastic reliefs and statuettes, **57** but it also was soon covered by the heavy woolen robe. Only arms and legs remained free, as in a series of stone figurines from the temple of Tell Asmar (Baghdad Museum; Oriental Institute, Chicago). Most of the figures are bearded, with large, wide-open eyes, their hands crossed in an attitude of prayer.

This tradition was maintained throughout three millenniums. Its end products were the gigantic, but somehow sterile, reliefs from the last Assyrian period, when the body was completely enveloped down to the feet. It may well be that these ritual garments explain why — in contrast to Egypt — there was no plastic investigation of the human body in Sumer.

Yet Sumer had a short period during which even the handicap of the cumbersome knitted robes was surmounted, and expression given to human dignity and inner piety. The large diorite statues of the priest-king Gudea of Lagash **114** (Telloh), most of them in the Louvre, convey an unusually strong expression of deep earnestness and pious meditation (Parrot, 1948). Here everything is concentrated upon the features. The body itself is

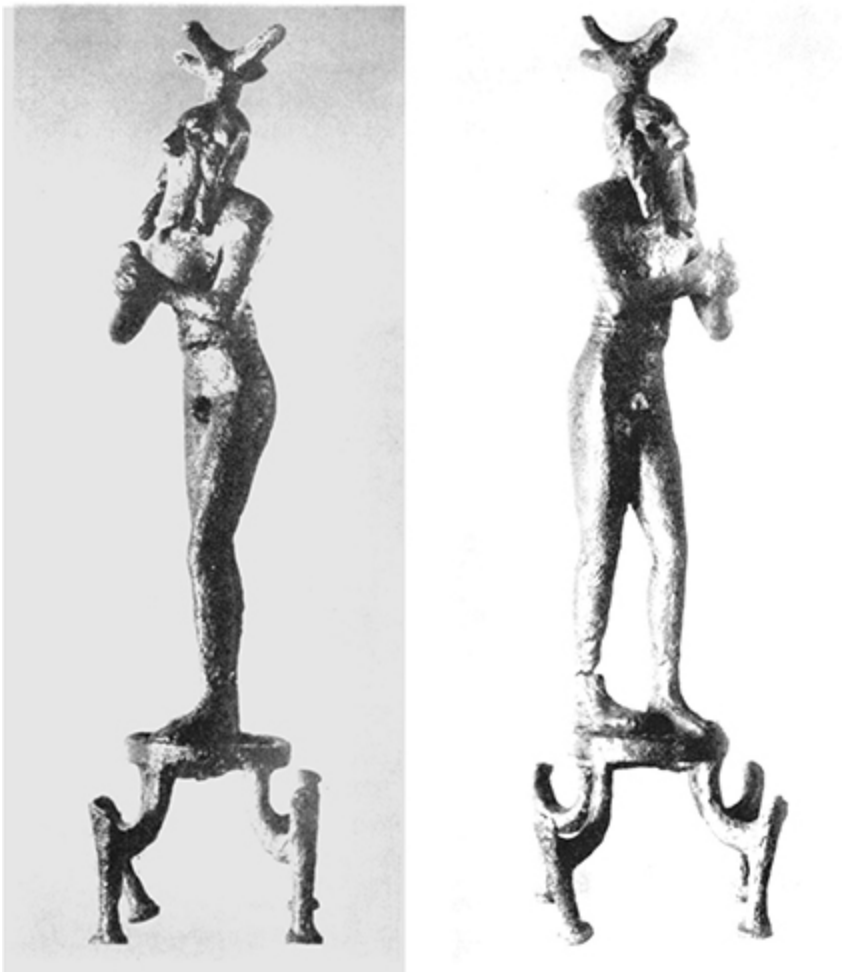
scarcely apparent. It is buried beneath the heavy gown, as beneath a coat of armor. Only the hands speak.

Gudea reigned shortly before and at the beginning of the Third Dynasty of Ur, thus about half a millennium after the Mycerinus sculptures. His statues stood, as lasting intercessions of the priest-king, in a public temple erected to the city-god Ningirsu and other deities. This is very different from Egyptian mortuary complexes, which were inaccessible to the people.



SEATED STATUE OF GUDEA, *priest-king of Lagash, with the ground plan of a temple on his lap. The form of his body disappears beneath his heavy garment, except for the finely modeled hands*

clasped in prayer; ca. 2100 B.C.



COPPER STATUETTE OF NAKED PRIEST *standing on a pedestal: Two views. The flexibility of the body in its attitude of prayer is reminiscent of Greek statuary. Offering stand from temple of Khafaje. Early Dynastic period*

The Gudea statues are pure sculptures in the round and were certainly free-standing. The largest one, in the Louvre, portrays Gudea in his most distinguished capacity, as temple builder. Upon his knees lie the ground plan of a temple, a yardstick, and a measuring peg, just as, in a somewhat different form, they are perpetuated upon the stele of his younger contemporary Urnammu of Ur.

159 ff The sculptured limestone vases of the Protoliterate period in the third millennium pushed high relief to extreme limits. The two deer upon a large **56** copper panel from Al ‘Ubaid are also three-quarters in the round, parts of them springing forward beyond the frame. Such instances would

seem to imply that a strongly sculptural development lay ahead. Nothing of the sort occurred. The promise of an early sculptural impetus in Sumer evaporated.

The starting points of this never-developed tendency must be sought among minor objects. In the temple of Khafaje, in central Mesopotamia, Frankfort and P. Delougaz discovered several copper statuettes of the Early Dynastic period, **115** representing priests naked except for a girdle (Frankfort, 1939b, pls. 98-103). They were raised up upon an airy, four-branched pedestal that served as an offering stand in the temple. Their hands are clasped in an attitude of prayer.

These figures have no vertical axis, no median plane. The body has become flexible. Arms curve freely, opening out into space, and wide-apart legs create a spatial tension. The torso is bent slightly forward in a momentary turning movement. This audacious conquest of the third dimension could never have occurred in Egypt, whose artistic canons stood in direct opposition. Three-dimensional movement in sculpture was only developed further in Greece. The Mesopotamian episode was cut short.

APPEARANCE OF ANTHROPOMORPHIC DEITIES

There is still much difference of opinion about just when the anthropomorphic deities first appeared. The question deeply affects the history of man, but there are few definite clues to lead us to an answer.

Both literary and pictorial sources are extremely scarce. In literature the Gilgamesh epic, probably written down in the latter part of the third millennium, about 2600 B.C., gives the best insight. Gilgamesh, a typical example of the newly created hero figure, appears to have reigned only a few centuries earlier as king of Uruk, thus approximately in Uruk III or Uruk IV, the Jemdet Nasr period and the time of the first great architecture.

In the epic, the world of gods is already well established. We meet the entire range — the anthropomorphic goddess Inanna, the demon Humbaba, Gilgamesh, the mortal hero seeking immortality who stands between god and man, and his hybrid companion Enkidu. All are woven into the action, which is already imbued with the tragedy that saturates Mesopotamian history and art.

In Egypt, more prone to visual than to literary expression, pictorial representation offers the best source of information, since the Pyramid Texts, though they certainly reach further back, were only chiseled into the walls of a pyramid mortuary chamber in the Fifth Dynasty.

In prehistory, as we have seen, there was always a reluctance to represent the human figure. Both high civilizations, Egypt and Sumer, seem at first to have felt similar restraint at representing the human forms of their newly created anthropomorphic gods.

Opinion differs as to whether at first only symbols were used, such as the sacred reed-bundle of the goddess Inanna in Sumer, or the shield with crossed **120** arrows of the goddess Neith in prehistoric Egypt. Did the symbols exist earlier, independently? Were they only taken over by or assigned to the later anthropomorphic deities? Did these abstract symbols go through a transformation similar to that of the celestial cow Hathor, who assumed human form, or of the heavenly constellations in both Sumer and Egypt, which became anthropomorphic gods? Such questions can scarcely be answered unequivocally.

The prehistoric reluctance to depict the human countenance and the tendency to replace it with animal-like faces or animal heads also lingered in Sumer and Egypt at the beginning of history, when the anthropomorphic pantheon was created.

The effort to thrust monotheism back to the early Mousterian period — some fifty millenniums ago — has now been abandoned. Relations with unknown forces took on no circumscribed forms during the whole of prehistory. There are no established representations of gods in human form before the historic period. What evidence exists is scarce and doubtful. In the Ashmolean Museum, for example, there is a basalt figurine, fifteen and one-half inches high, of a man with a hanging beard and a penis sheath. It has been described by W. S. Smith (1.958, pp. 13-14), who thinks it may be a god. We also know of a small drawing from the First Dynasty, often called the god Ptah.

In major First Dynasty representations, animal-gods are shown still in their animal form as mighty protective lords. The god of the kings, Horus, had not yet acquired his later hybrid form — a falcon head upon a human body. On the **below** beautiful limestone relief from the tomb of King Zet in the Louvre, Horus is still completely a falcon. He perches upon a rectangle containing the hieroglyph for the king's name — a serpent — and a representation of the entrance to the palace; thus he protects both the person and the abode of the king.

The creation of the pantheon of divinities runs parallel with the creation of the state. The opinion of the Dutch philosopher of religion, G. van der Leeuw, that God "is a latecomer in the history of religion" (1933; tr. 1938, p. 104), becomes more and more credible.

Sumer

No pictorial representations of deities were found in early Sumerian temples, nor in the temple of Al 'Ubaid dedicated to the mother-goddess Ninhursag and ascribed to the First Dynasty of Ur, nor in the great temples of Uruk III. The naked figures with priestly girdles that appear on stone reliefs and vases of **161** Uruk III and elsewhere, either engaged in battle or protecting the sacred animals, are not gods. Neither are the bull-men who

often appear in pairs on seals **65** and reliefs. But this docs not mean that no gods of the Sumerian pantheon existed at that time.

STELE OF KING ZET: *The god Horus, who has not yet acquired human features, appears as an enormous falcon protecting both the king—represented by his signature, a serpent—and the entrance to the palace. From Abydos, First Dynasty*

The alabaster vase of Uruk

An alabaster vase, part of a large collection of finds (1.933-34) from two rooms **121** of a building in the latest Uruk III level, shows perhaps better than any other find the uncertainty surrounding the human appearance of the deity. This vessel, approximately three feet high, displays in four bands

of successively larger size a presentation of offerings. The lowest band shows the world of edible plants; immediately above it are the domesticated animals; along the third band is a procession of naked priests bearing libation vessels and offerings in cone-shaped baskets. Finally, in the broad top band, the procession with its gifts nears **120** the sanctuary, indicated by the sacred reed-bundle symbol.

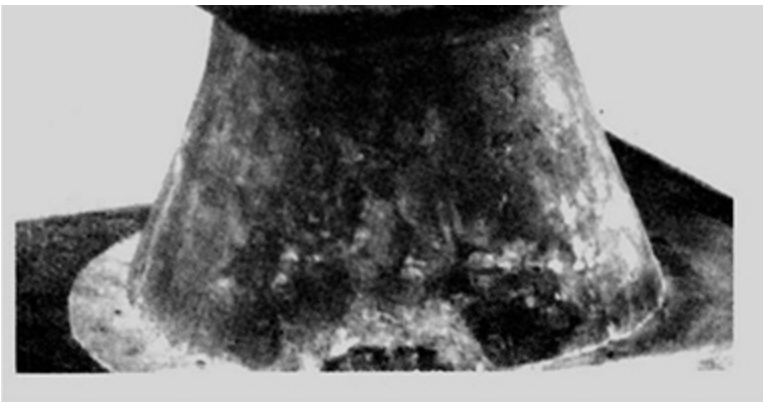
"'The great alabaster vase," writes its finder, E. Heinrich, "lay fallen over and crushed beneath the weight of the masonry above it, so that it had broken into fifteen pieces. . . . Even before its burial on this site . . . the vase had been broken and repaired with the help of copper bands" (1.936, p. 1.5).

Is the robed female figure before the sanctuary the fertility-goddess Inanna herself, or a priestess? A conclusive answer is not possible, since a decisive fragment is lacking: the headgear of the central female figure. Did she wear the horned crown, which in later representations is the distinctive sign of a deity? Frankfort believes the two reed-bundles establish the figure as a divinity, "for such a bundle is the pictographic prototype of the character with which her name was written in historical times" (1954, p. 10).

A hint that it is the priestess rather than Inanna herself who is represented on this alabaster vase comes from two other sources of the same period. A seal in the Baghdad Museum shows an offering scene with two similar conical baskets of fruit standing on the floor. Before them are two man-high reed-bundles without priestess or goddess (1939b, pl. V c). In the temple of Inanna at Uruk was a trough, also contemporary with the alabaster vase. It **120** depicts the sacred flock of sheep returning to a reed hut which shelters their lambs. The presence of the goddess is announced by two tall Inanna symbols which rise above the reed hut. Another reed-bundle, probably paired, protects the rear of the flock. The placing of these symbols in this scene comes very close to that on the alabaster vase.

URUK ALABASTER VASE: *Detail. The most conspicuous objects are the more than human-sized reed-bundles, symbols of the goddess Inanna. To the left a naked man offers fruit in a conical jar. The setting implies that the figure receiving the offering is a priestess. Early third millennium. Drawing by Heinrich*

RELIEF ON STONE TROUGH: *The largest objects are the reed-bundles of Inanna which project high above the sacred barn. Same period as Uruk vase*



URUK ALABASTER VASE: *About three feet high. The three lower bands of reliefs represent plants, animals, and human bearers of gifts. The upper band shows the offering scene before the sanctuary of Inanna. Early third millennium*

Heinrich does not decide whether one should accept "the person who receives the offerings as the goddess herself or only as her representative, as a priestess" (1936, p. 16).

Knowing the hesitancy to represent clearly-featured deities in this period, there seems no reason to regard this undoubtedly dominant figure as a deity.

From the middle of the third millennium, representations of anthropomorphic deities exist on reliefs and on cylinder seals. The so-called vulture stele reveals the situation at this period more clearly than any other representation, with its **60** daring attempt to portray the god himself in effigy. Ningirsu, the protective god of Lagash, is shown grown to mountain height, invincible and pitiless.

This oversize representation of the deity indicates the newness of the attempt to give a human shape to an immortal. Later on, the god is shown no larger **right** than the mortals, sitting on his throne like an earthly king and distinguished only by his tiara of horns.

The astral gods of Sumer

With the creation of anthropomorphic gods the primeval conception is expanded; primeval man's immediate nearness to and direct contact with the animal fade into the background. Larger dimensions take their place: the world and the underworld, water and floods, air and storms, heaven and the heavenly bodies — all are bound into the anthropomorphic process. In detail, the methods by which this transformation took place were different. The principle remained the same.

Prehistory had never given definite form to the invisible power, but with the first high civilizations came the rationalization of the intangible in the form of humanlike gods. Man projected himself into the infinite. Embedded in religious images arc the germinal forms of that *hubris* which man would later invoke in his desire to become master of all nature.

The moon-god Sin, or Nannar (Sumerian), was the sickle moon. He was the oldest of the three supreme astral gods and father of the other two — the sun-god Shamash or Anu (Sumerian), and his twin sister Ishtar or Inanna (Sumerian). The sun-god was the intercessor with the moon, from whom the day would be born.

Upon a ten-foot stele of King Urnammu of Ur, assembled from small stone **right** fragments, the moon-god Nannar appears in the uppermost row, seated on a throne with Urnammu standing before him and receiving his command to build the ziggurat of Ur, of which the moon-god was considered the proprietor. The strength of the cosmic component in the outlook of the time is brought out by the size of the heavenly bodies in this relief. A sickle moon surmounted by a star is its most outstanding feature, at the summit of the stele and larger than the enthroned god.

URNAMMU STELE: *Detail. The moon-god Nannar, oldest of the three astral gods and lord of the city of Ur, sits on a throne. Before him stands Urnammu being commanded to build the ziggurat of Ur. The size of the astral bodies indicates their importance. End of third millennium*

127 The symbol of the sun-god Anu was a sun wheel with four undulating spokes (sun rays).

Inanna, the third member of the triad, was the goddess of Uruk, the religious center of Sumer. In this aspect she was daughter to the moon-god Nannar. She was also depicted as daughter to Anu. When she was one and when the other depended upon the city. In Ur, she was the daughter of Nannar, but in her own city of Uruk, where beside her shrine stood the huge temple precinct and ziggurat of the “Lord of the pantheon," Anu, she was daughter to this supreme godhead. She appears in this aspect in the epic of Gilgamesh when she laments before Anu the hero’s captivity. All this shows Inanna’s importance in Mesopotamia. In Sumer’s so expressly male and

patriarchal pantheon she attained an extraordinary prominence, which she held until the fall of Babylon. In her anthropomorphic form she became a wildly passionate woman — something unknown among the goddesses of Egypt.

82 In the beginning, Inanna had been a fertility-goddess. Her early symbol, a bound bundle of reeds, was typical of a newly established community based upon the care of fields and kine. This symbol probably antedated her anthropomorphic form and her transplantation to the heavens.

During the course of the third millennium the cosmic identification was completed. Inanna was then incarnated in the shining planet Venus, the brightest object in the early evening sky. But her metamorphosis was to go further. In the epic of Gilgamesh, around 2600 B.C., she was an aggressive, lusting woman; by the time of Gudea of Lagash, around 2000 B.C., she had become a blood-thirsty war-goddess, and this she remained.

127 The three most striking heavenly bodies — moon, sun, and Venus —form an astral triad that recurs under different names in the later Mesopotamian period. The Tower of Babel was dedicated to the sun-god Marduk, and the famous portal of Babylon, through which the New Year festival procession had to pass, bore the name of Ishtar (Inanna).

Apart from this triad — moon, sun, Venus — there was a second, consisting of An (or Anu), chief regent of the Sumerian pantheon; Enlil, the storm-god and executor of fate; and Enki, god of handicrafts and of the life-giving waters of wisdom. Some Sumerian scholars add to this triad the great mother-goddess Ninhursag (Kramer, 1956, p. 84).

The domain of the gods Anu, Enlil, and Enki was no longer confined to individual stars. It ranged over whole sections of the firmament. “Between the three rulers of the visible world, the astronomers divided the celestial zone delimited by the Tropics of Cancer and Capricorn. This part of the firmament was separated into three routes: a central band, on either side of the equator, formed the route of Anu; the band to the north the route of Enlil; the band to the south the route of Ea [Enki] (Dhorme, 1949, p. 36).

In addition to the great triads, there were almost uncountable numbers of lesser astral gods, each linked to a certain constellation. Even the god of hell, Nergal, was identified with the planet Mars.

Kudurru: symbols and astral deities

According to when one dates the first downfall of Babylon, Mesopotamia was ruled for about four hundred years by wild tribesmen from the Zagros Mountains. This whole period, particularly its opening, is little known. Among its few architectural remains is the steep ziggurat of Aqar Quf, which still stands near **235** Baghdad at Dur Kurigalzu, the Kassite capital founded in the fifteenth century B.C.

The most important artistic evidences of the Kassite period are their numerous steles, called *kudurru,* which are now in museums everywhere — the Louvre, the British Museum, Baghdad, etc. These *kudurru* are in the shape of the boulders that lie scattered over the highlands of Kurdistan whence the Kassites had come. They are often considered boundary stones which guaranteed property rights (King, 1912). Contenau, however, states that "they are the authentic deeds, documents, which were never placed in the fields . . . but in the temples in the custody of the gods" (1931, II, p. 896). They are also sometimes deeds of donation of property. Their inscriptions recount the duties and rights of the property owner: blessings on those who follow the rules, curses on those who break them. To increase their efficacy, symbols of the gods were added and, more rarely, the familiar scene of a personage offering to an enthroned god. The quantity of symbols rather than representations is new, and is explained as due to the limited space available. This can scarcely be the reason. Neither earlier nor later in Mesopotamia were there such fantastic and enchanting assemblies of symbols of the astral deities. They possess the chimeralike fantasy of the Asiatic hinterland that later appeared in the animal style of Luristan.

WINGED CENTAUR FROM A KUDURRU. *From Boll*

KUDURRU: *Astral symbols representing Kassite deities emerge near a ziggurat. The dragon represents Nabu, god of wisdom; the double lightning flash, Adad; the scorpion, the goddess Ishara. A scepter terminates in a chimeralike head; ca. 1500* B.C.

KUDURRU FROM UR: *Surmounted by planet Venus, moon, and sun. This boundary stone is dominated by the demoniac expression of the astral symbols of Kassite deities; ca. 1500* B.C.

It has long been recognized that a centaur is portrayed on one of the *kudurru* **125** in the British Museum. This ithyphallic winged figure has two heads and two tails, and is loosing an arrow from a bow (Boll, 1.903, p. 189). A similar centaur appears in the Hathor temple at Denderah, where, in Roman times, the twelve constellations of the zodiac were depicted (p. 1.91). The centaur there represents Sagittarius. The centaur from the shadowed history of the Kassites was accompanied by a scorpion, the adjacent sign of the zodiac. This strange resemblance between representations a millennium apart would seem somehow related, though we cannot prove it, to the rise of astrology in Mesopotamia (p. 182). Egyptian representations of the constellations, around the same period as the **143 ff** *kudurru,* in the tombs of Senmut or Sety I, had nothing to do with the signs of the zodiac.

A strange, demoniac atmosphere emanates from these stones and their symbols. **127** On one the cuneiform inscription is compressed into the lower part of the stone and is dominated by a group of symbols. These represent a mixture of old Sumerian deities with others brought in by the Kassites. At the top are the Sumerian triad: the Venus star Inanna, the crescent moon Nannar, the sun Anu. Below them is a row of temples surmounted by symbols of the Kassite gods.

On a *kudurru* from Ur in the Baghdad Museum a group of astral symbols **126** emerges near a ziggurat: a dragon for Nabu, god of wisdom; a double flash of lightning for Adad, god of lightning and the beneficent rain; and in the upper part, the scorpion-goddess Ishara and a kind of scepter terminating in an animal with an elongated snout.

The Kassite *kudurru* with their excitable demoniac symbols were a reflection back from the anthropomorphic gods to the symbol. They are the expression of a savage mentality, far removed from that of the cultivated Mesopotamians.

Humanization of the course of the sun in Egypt

The principle by which the Egyptian universe became anthropomorphic was the same as in Sumer, but it was carried through quite differently. It was penetrated by the optic awareness of the Egyptians as well as their mythopoeic disposition.

It is true that the Mesopotamian gods had families and history. But in comparison to the lives of the Egyptian deities, their lives were static. In Egypt one image followed on the heels of another. Although, indeed, the mythopoeic dramatization of images was only fully developed in the New Kingdom, with its great gift for narration, its roots ran far back. It was the course of the sun, the cycle of the twenty-four hours, that always rekindled the imagination.

Even before the birth of the gods an incorporation with the cosmos had been announced. A Predynastic ceramic dish in the Cairo Museum portrays in **below** abstract form the course of the sun from east to west. At the two ends of this oval-shaped bowl, two circles with rays indicate the position of the sun in the west and the east. In the center stand the Mountain of the East and the Mountain of the West in the form of two isosceles triangles. A number of zigzag lines which are interrupted by the two suns indicate the enclosing primeval ocean. The passage across the heavens and the distinction between the morning and the evening sun are already seen individually. In this Amratian dish a scene is set which will be enlivened by mythopoeic and anthropomorphic sun worship.

Among the many theological systems of Egypt, none was more popular and none underwent more artistic elaboration than that of Heliopolis. The city had been an influential religious center even before the founding of the kingdom, and it retained its magical powers of attraction until the Grecian period. No part of its theological system excited so much pictorial representation as the cosmologic concept. Rooted in sun worship, it was based on the daily cycle of the twenty-four hours, the continual change from day to night and from the rising to the sinking of the sun.

OVAL AMRATIAN DISH: *Abstract portrayal of the orbit of the sun during day and night. Two isosceles triangles indicate the Mountains of the East and of the West, white zigzag lines the oceans of the sky and of the nether world. Amratian period*

135 The sun itself was transported in two ships, a ship of the day and a ship of the night. While the ship of the day crossed over the ocean of the sky, the ship of the night traversed the nether world, the primeval ocean. The night sky, when the moon takes over from the sun, played a far less prominent role, just as the moon in Egypt had for less importance than in night-oriented Mesopotamia. In Egypt the moon was represented by the god Thoth, who was far more renowned as the inventor of writing and as the god of wisdom than in his secondary function as god of the moon.

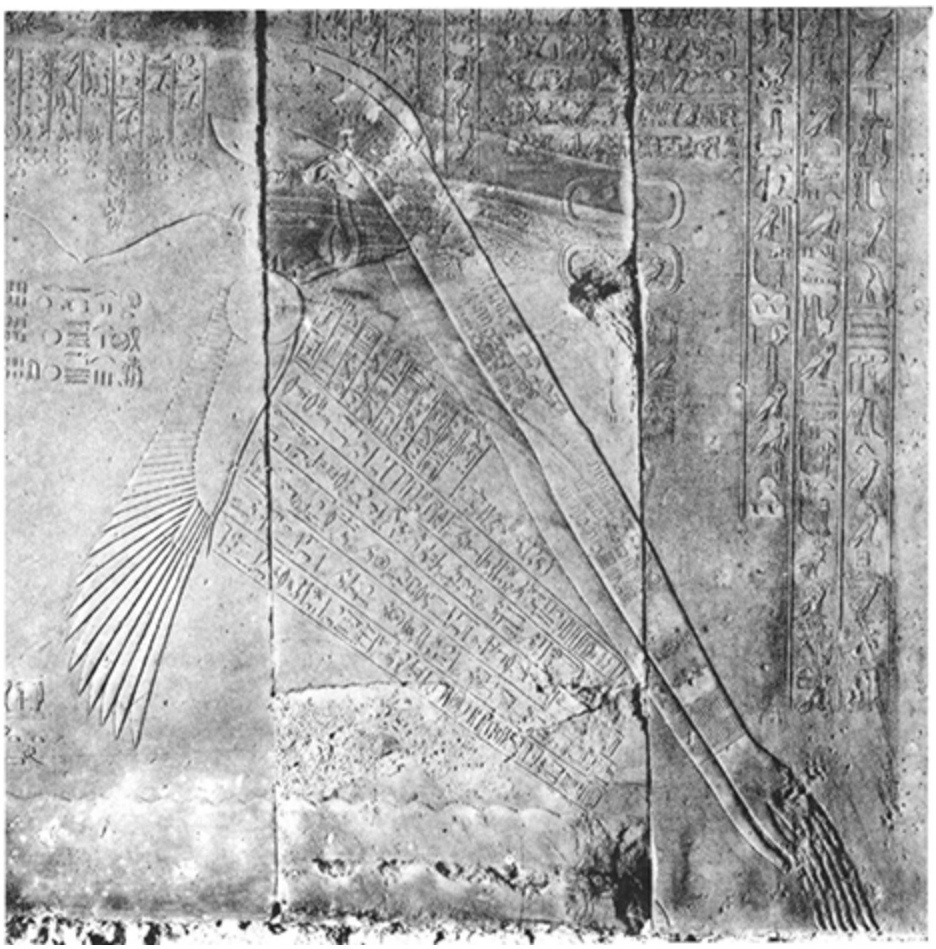
We know of no more dramatic representation of the path of the heavenly bodies across the arc of the sky and the nightly struggle of the passage through the underworld. It gave rise to ever-new variants, ever-new pictures of how the sun disappears in the west and is reborn, and of what happens from hour to hour on both sun ships. The manifold meanings and polymorphic transformations of form of the sun-god Ra and his companions here come to fruition.

The theological invention of the nine gods of Heliopolis (the Ennead), with their simultaneous incorporation of animals, was a master stroke of priestly imagination as great in its way as the architectonic imagination of

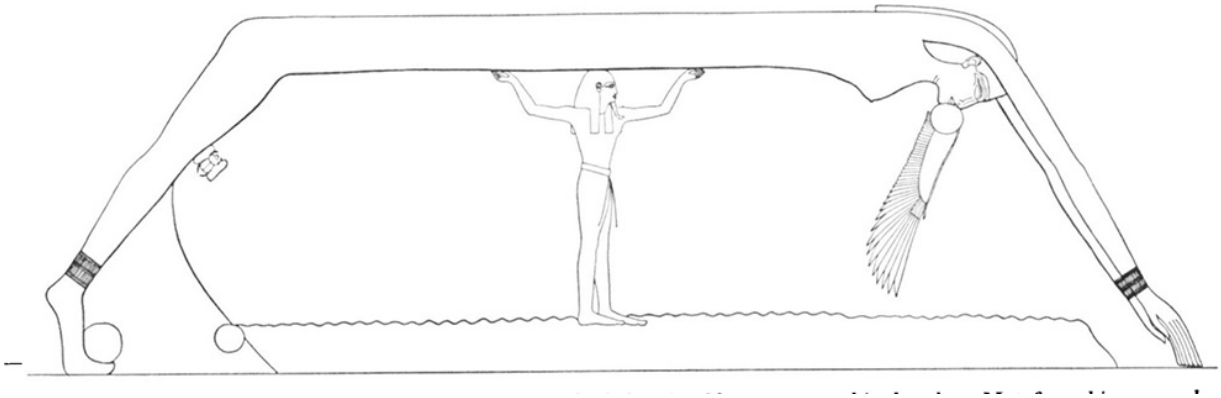
the pyramid age. At the head of the Ennead was the sun-god Ra, whose children were Shu, god of the air, and his wife Tefnut. Geb, the earth-god, and Nut, the sky-goddess, were born of this union; their children in turn were Osiris and Seth, and the goddesses Isis and Nephthys.

In one form or another, the various family connections of the Ennead were woven into the cosmologic scene. The violent severance of earth and sky belongs to the myths of humankind. In Egypt it became highly anthropomorph-**right** ized. The severance of heaven from earth recurs continually. It is caused by Shu, who stands with both arms stretched above him to hold his daughter Nut, goddess of the heavens, apart from her husband and twin brother Geb, god of the earth, so that the coupling twins shall be forever separated.

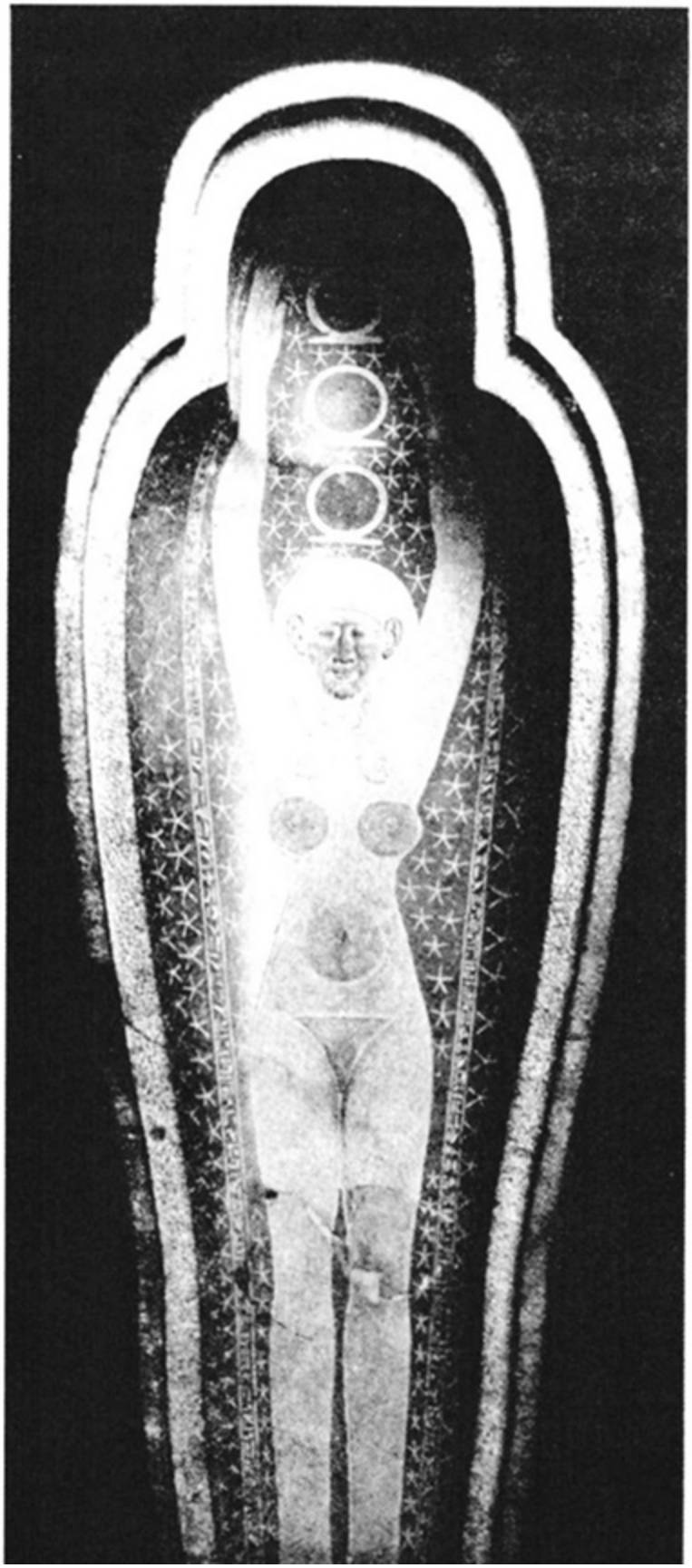
This momentary acrobatic situation was, with Egyptian charm, transposed into an eternal continuity. The goddess Nut remains a graceful, slender woman despite her long, outstretched body which suggests the Egyptian notion of the heavens as a huge platter. The four pillars which support the sky must also be shown; they are the stretched-out hands and feet of the goddess, which touched the earth with the tips of their elongated fingers and toes. In another version, the sky is represented as the body of the cosmic cow, Methyr or Hathor, whose four legs constitute the four posts of heaven.

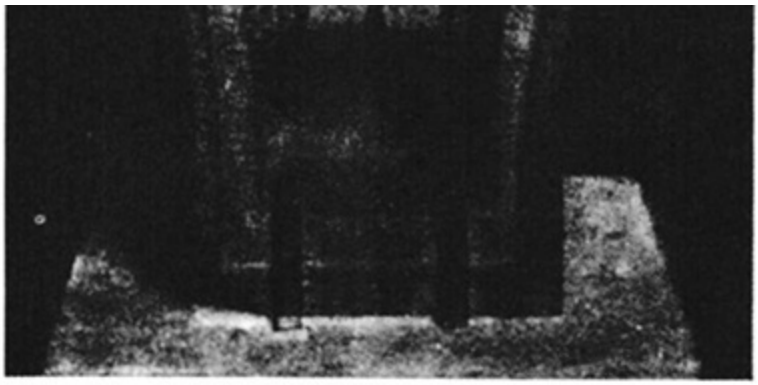


NUT, GODDESS OF THE SKY, *swallowing the winged western sun, whose rebirth in the morning is indicated by another winged ball at her feet. Detail of relief below. Nineteenth Dynasty*



NUT, GODDESS OF THE SKY: *The god of the air, Shu, separates his daughter Nut from his son and her husband, Geb, god of the earth, here indicated only by an undulating line. Relief from the cenotaph of Sety I at Abydos. Nineteenth Dynasty. Drawing after photograph taken by Calverley*





NUT, GODDESS OF THE SKY: *Nut bends over the dead as she does over the earth. Five-pointed stars border her body, and above her head is the threefold symbol of eternal return. Painting on underside of sarcophagus lid. Late Period*

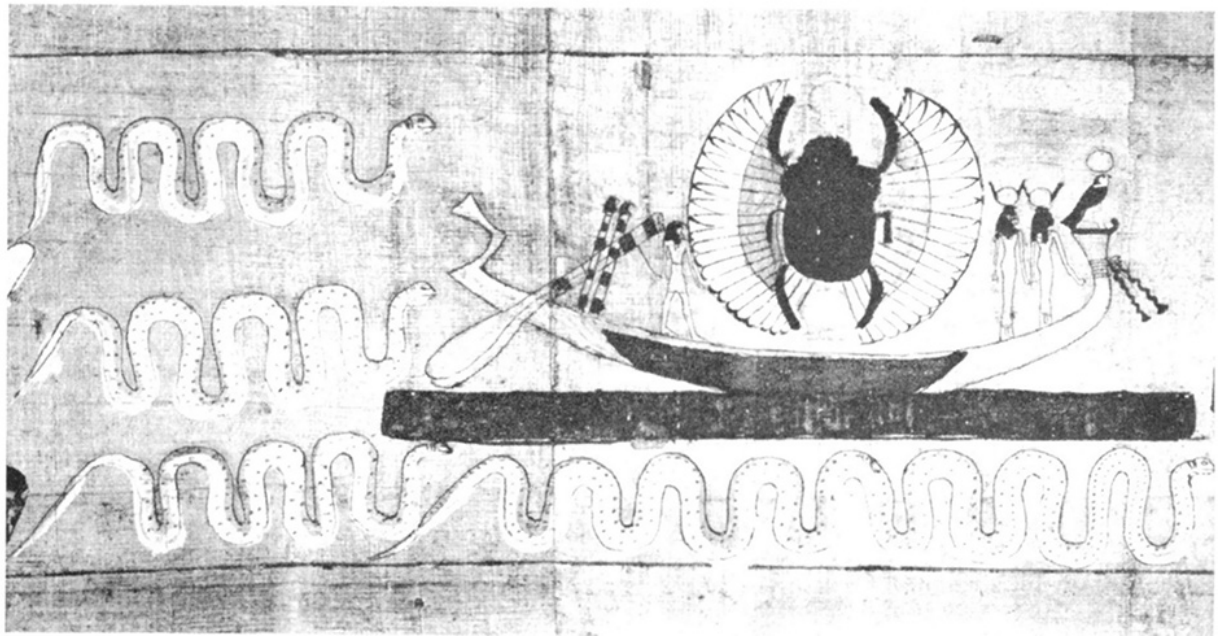
One of the most beautiful representation of Nut covers the ceiling of the enormous cenotaph sarcophagus of Sety I in his mortuary temple at Abydos. The distortions of the proportions of Nut's body, which by no means conform to **131** the Egyptian canon, do not destroy the charm of this figure. She is simultaneously as delicately balanced and as tremendous as the course of the world. Her body sparkles with stars. "Against the mouth of Nut the sun disk is figured, apparently with folded wings" (Frankfort, 1933a, p. 73). This represents the sun-god Ra, and the inscription states: "The Majesty of this god enters into her mouth in the Netherworld. The Netherworld is opened when he sails in it. The stars enter after him . . . and they hasten to their places. ... In the left half of the picture the sun is seen three times: once in the soil by itself, once on the foot of Nut, apparently still inside the earth, and finally as a beetle flying along Nut's thigh" (pp. 73-74). Nut swallows the sun each evening and gives birth to it each morning. Eternally between her mouth and her vulva it undergoes a daily renewal of life: "The Majesty of this god comes forth from her hinder part" (p. 74).

In the Late Period, Nut's function was popularized. Her regenerative power then became available to normal mortals. She became a goddess of death. Along the inside of the lids of sarcophagi from the Saite period stretches the arched **left** and slender figure of the goddess, protecting and bestowing life on each dead body over which she bends.

The connection between Nut and the passage of the sun, though the best known, is only one interpretation of her role. She could also suddenly become Hathor, who strides out from the Mountain of the West, in her form of a cow, to receive the stars.

In a Theban grave of the Eighteenth Dynasty a headless goddess with projecting breasts receives the sun in her outstretched arms. Is she Nut? Or is she, as others maintain, the less clearly defined scorpion-goddess Selkhit emerging from the Mountain of the West? (Jéquier, 1946, pp. 240-41) In this headless figure, with her black-tipped breasts, we see a continuance of primeval representations. **1:217**

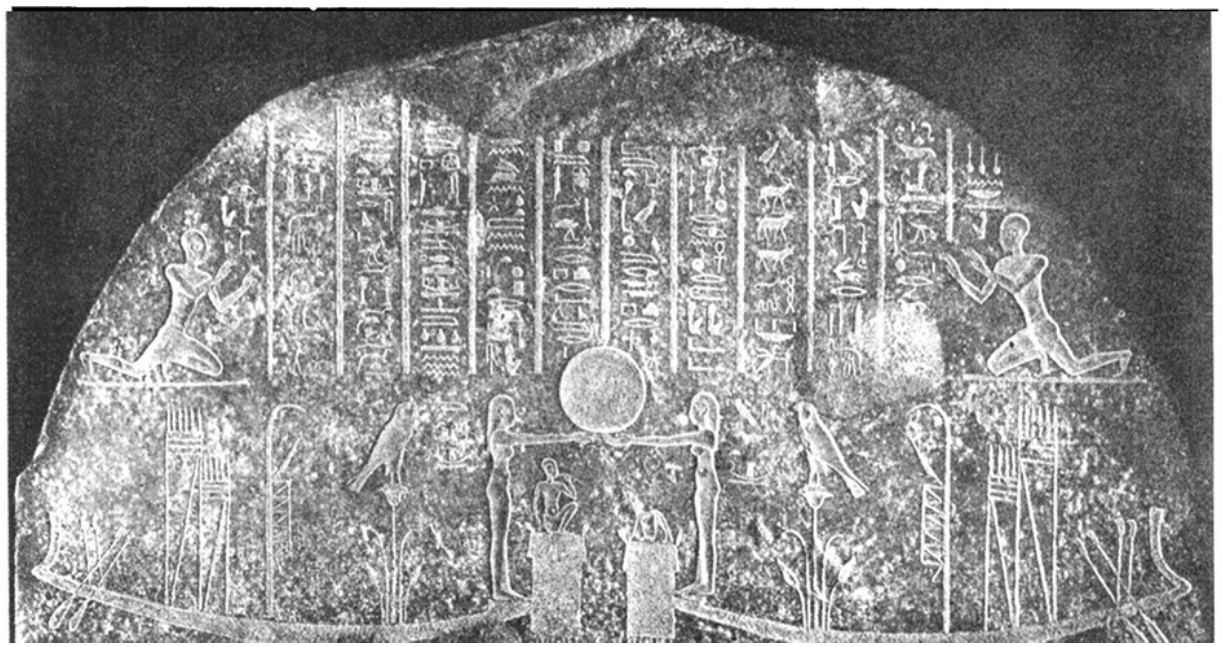
The path of the sun never ceased to excite the mythopoeic side of the Egyptian nature. Sethe has gathered together many of these images (1928). At their root lies the belief that the sun is the source of all life. The way in which ever-new versions of the journey of the sun and of the birth of the sun came forward is a sign of how the Egyptians were fascinated by the eternal recurrence of change and permanence, the eternal wandering and return. We find here a phenomenon parallel to the processional journeyings of the statues of the gods from one temple to another. The notion is also reflected in the architectural organization of the great temples, as well as in the earlier pyramid complex, with its valley temple, causeway, mortuary temple, and the pyramid itself, from which the heavenly ladder conducted the dead king up to the sun. An eternal wandering.



THE WINGED KHEPRI *in the solar barge: The sacred ship on the water. At the prow a hawk surmounted by a disk and two Hathor figures. At the stern a Horus-god stands near the rudder. Papyrus of Nesi-Khonsu B. Twenty-first Dynasty. From Piankoff*

On the lid of the gray granite sarcophagus of the priest Taho in the Twenty-sixth Dynasty (Saite period), the transference of the sun from his nocturnal **right** ship to his day ship is most delicately represented. Two goddesses stand, one in either prow, their arms extended horizontally, and the great weightless ball of the sun gently rolls from one outstretched hand to the other. The length of their arms is intentionally exaggerated.

It was not necessary for the sun to be born each day from Nut. The bark of the sun could instead be raised from the nether world by Nun, god of the primordial ocean (Jéquier, 1946, fig. 21).



TRANSFERENCE OF THE SUN *from the ship of the night (right) to the ship of the day (left): The ball of the sun, like a weightless balloon, just touches the long, outstretched arms of the goddesses standing in the prows. A deeply engraved Horus dominates each boat. Sarcophagus of the priest Taho. Twenty-sixth Dynasty*

The birth of the sun could also be consummated by symbols. In the Leiden Papyrus the sun is raised up to the sky by two human arms which grow out from the *ankh,* the sign of life, which itself emerges from the *djed,* the symbol of eternal duration. Isis and Nephthys, the one belonging to the day, the other to the night, kneel upon the earth in adoration, while on either side dog-headed apes greet the rising sun.

The sun takes on different forms at different hours. In the morning it appears **left** as Khepri, the scarab, at midday as the falcon with the sun disk encircled by the uraeus serpent, at night as the ram.

The disk of the sun can also appear in human form, usually with a ram's head, in the center of the sun boat, which was manned on either side by gods. These were the "untiring" circumpolar stars.

The orbit of the sun seldom penetrated so deeply into man's consciousness as in the valley of the Nile, with its directly north-south orientation. Across the vast expanses of the desert the sun blazed with absolute dominion. It furnished a point for an untiring imagination that transposed reality to a mythical religious sphere. The daily journey of the sun became an ever-renewed battle between light and darkness, between the forces of good and of evil, which were continuously undergoing anthropomorphic transformations.

On the structure of Egyptian and Greek mythologies

The direct contrast between Greek and Egyptian mythology throws further light on the Egyptian attitude toward the anthropomorphic deities.

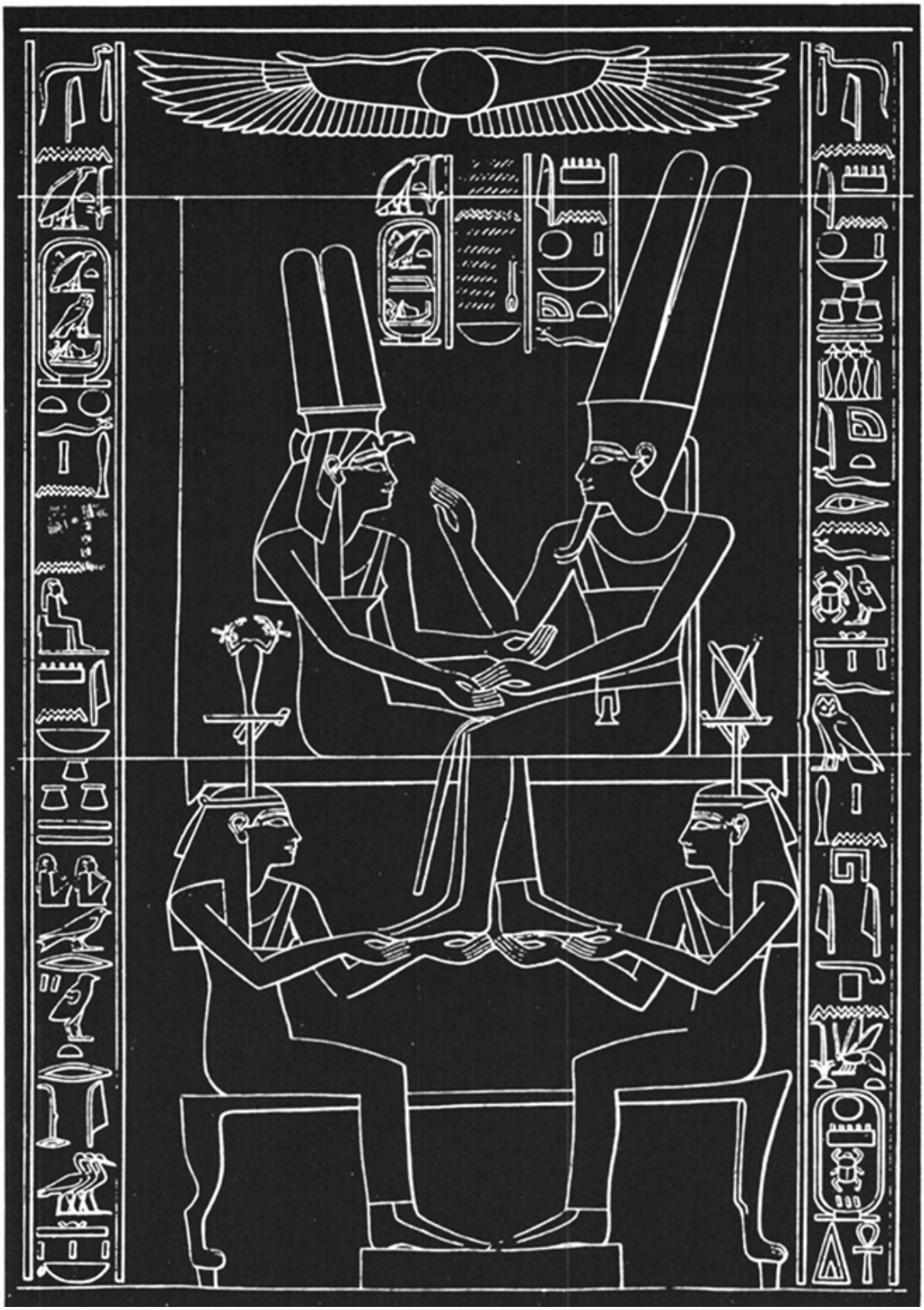
Greek mythology was concerned with human relations, human tragedy, and human fate. Individual human experiences were built into the forms the Greeks created: in sculpture the human figure took on a three-dimensionality totally unknown before. Although gods of the Greek pantheon were concerned with cosmic symbolism — Apollo, Demeter, Dionysus — this aspect remained in the background.

A relief in the Birth Room of the temple of Luxor depicts the divine origin of **right** Amenhotep III. It shows the god Amon meeting with the mother of Amenhotep; they are seated together upon the hieroglyph for "heaven." Their feet rest weightlessly upon the hands of two goddesses, Selkhit the scorpion-goddess, and Neith, goddess of arrows. "Selkhit is closely linked with Neith, both goddesses together are handmaidens who assist at the birth and in the care of the divine infant" (Roscher, IV, p. 652). Neith is here no goddess of war. She is "the great mother of god, Amaunet, who appears in prehistory . . . [and] created the seed of gods and men" (Bonnet, 1952, p. 515). Conception and birth are simultaneously symbolized. All expresses a joyous festival.

Very different is the case of Alcmene and Zeus-Amphitryon, a single erotic adventure wherein the god took the form of Amphitryon to gain his ends, and Alcmene felt herself guilty as soon as she realized what had occurred. In the case of Amenhotep III, it is a ritual fertility proceeding that

is represented; it was repeated with each king, since it was presumed that every Egyptian king was directly conceived by god.

The intimacies of Zeus are the outgrowth of individual eroticism. From the Greek period on, eroticism took the place of fertility symbolism. Hence the exaggeration of individual erotic experiences. Again and again this results in human tragedy or — as in the *Iliad* — in altering the fate of whole peoples.



AMON AND THE QUEEN: *To symbolize the act of theogamy, their hands meet and their feet are crossed. Below them sit the goddesses Selkhit and Neith, who will nurse and protect the infant Amenhotep III. From an Eighteenth Dynasty relief in the Birth Room, temple of Luxor. Drawing by Schwaller de Lubicz*

In the Egyptian sphere, the oneness of the world in the form of cosmic symbolism was paramount. Tragedy and the fates of individuals were of little account. The period of individualism had not yet dawned. When the matter came up it was in connection with the possibility of projecting memory into the afterworld. This occurred in the New Kingdom with the independent-minded Queen Hatshepsut and with the religious revolutionary King Akhenaten, who unseated the pantheon of gods and installed in their stead Aten, disk of the sun, as the single supreme godhead.

One of the few tragic episodes in the history of the Egyptian gods was the dismemberment of Osiris by his brother Seth. After the battle between Horus and Seth, the matter was resolved satisfactorily for all parties through a reorganization of the cosmic laws.

It is no accident that it is from late classical sources (Plutarch) that we are informed of the sacrificial role played by Osiris' wife Isis, and of the developed sequence of feasting, death, dismemberment, and the reassembling of the body of Osiris, even down to the smallest detail.

Egyptian mythology does not enter matters of individual fate. It deals with cosmic powers whose unending flood overwhelms and humbles man. Instead of the fates of individuals with their differentiations of personalities, it is concerned with subtle differences in cosmic occurrences such as are scarcely observed in other cultures.

INTERDEPENDENCE BETWEEN MAN AND ASTRAL BODIES

The notion of a connection between astral bodies and human destinies is part of a universal concept that the cosmos contains nothing fundamentally dead or inimical.

Early, precise observations of the stars and their movements reflect a longing to establish the interdependence between stars and earth, stars and man. The connection between the sun and the seasons of the year was manifest; the connection between the moon and the earth, the moon and growth, was more mysterious. Wholly intangible was the relation with more distant constellations, such as the circumpolar stars, which ever point to the North Pole and never sink below the horizon: the Egyptians named them the “untiring.”

The demand for a relationship was differently felt in Egypt than in Mesopotamia. Both countries used observations of the stars to establish seasons of the year, to orient their buildings, and for various other practical purposes. But then their paths diverged.

In Mesopotamia, scientific knowledge and the foretelling of destiny were inextricably amalgamated. In an often retold dream of that great figure of the early period, Gudea of Lagash, the goddess Nisibis appeared to him not only as the goddess of intelligence, wisdom, mathematics, and writing; she also “bore the tablet of the good star" — in other words, she was simultaneously goddess of astrology (Dhorme, 1949, p. 283). “For the Sumerians and Akkadians, the sky was, in effect, a great map on which their destiny was inscribed. Men called the constellations 'the writing of heaven’ or ‘the writing of the firmament’ ” (p. 282).

The great complexity which once encompassed the relations of stars and earthly happenings in Mesopotamia has not been explored. How far the resulting tradition was based on experience, on mythical thought, or on pure superstition is a complex question today left hovering in mid-air, though it demands elucidation just as do the Mesopotamian symbols, also neglected in research. It is no longer sufficient to sweep them under the rug with Cartesian logic.

The Egyptians pursued a purpose different from that of Mesopotamia. When they depicted the stars in a sepulchral chamber, they did it simply to inform the **143** dead of the paths of the astral bodies and so to guide him in his eternal wanderings.

The relationship between man and stars in the first high civilizations was thus fundamentally different from ours, which involves far greater knowledge of new astronomical worlds, their distances, and their temperatures. The concept of infinity has never before been so forcibly hammered into men's minds. The entire structure of present-day knowledge requires that it reject all mystical connection between cosmic and earthly happenings.

Today, nevertheless, many observations from earlier times live on without context. Among them is a belief that there is a relationship between the phases of the moon and the best time to sow seeds or breed animals. It is probably impossible to know how far back these and similar, certainly greatly distorted, notions reach. They stem from a time when there was still an undisturbed belief in the interdependence of man's fate and the cosmos.

The Egyptian mythopoeic imagination was kindled by the day, the Mesopotamian by the night. Until the end of the pyramid age the fundamental experience in Egypt was the radiant light of day and the sun; in the Land of the Two Rivers it was the starlit night sky and the moon. This difference ruled the thought of the two civilizations.

The Egyptians based their calendar on the sun year of *360* days, Mesopotamia on the moon year of 345 days. In Mesopotamia, "the month began with the evening when the new crescent was for the first time again visible just after sunset. The Sumero-Babylonian day also began in the evening" (Mercer, 1957, p. 110). In Egypt, the beginning of the year was connected with the first appearance of the star Sothis (our Sirius), in the early morning sky.

The experience of the night side of life, and the feeling of being utterly at the mercy of destiny, permeated Mesopotamian existence. Later, the Greeks took over the idea of destiny, without being led into the deep pessimism already revealed in the depressing adventures of Gilgamesh, around 2600 B.C. This interest in destiny was closely linked with a desire to fathom in advance the will of the gods. The stars were identical with the deities. They influenced all happenings and were thus guides to man's fate. Everything depended upon whether the initiate was able to read the

decisions of the gods from the movements of the stars. It has not been clearly proven just when this sort of belief in the stars arose. But it must be closely linked with the anthropomorphization of the universe, and thus it must have found its form shortly before or at the beginning of historical times: “Collections of astrological omens were made in Sumero-Babylonian times . . . as early as the time of Sargon” (ibid., p. 82).

In Egypt the situation was quite different. The Egyptian disposition was like the quiet, mathematically calculable flow of the Nile, in complete contrast to the eternally unpredictable behavior of the Euphrates and Tigris and the sudden catastrophic cloudbursts of Mesopotamia. These regional, structural differences were expressed in the differences of certain deities. Gods like Enlil, at once creator, storm-god, and executor of destiny, or Adad, the god of lightning, had no parallels in Egypt.

Egypt, as far as we know today, took no refuge in astrology. There have been recent attempts to prove that the meaning of the stars only rose to prominence in Hellenistic times (Nilsson, 1943). This would be true for Egypt, where the meaning of the stars first became influential under the Ptolemies, via Asia Minor. In Mesopotamia, as we have seen, it was quite otherwise.

The Egyptians’ knowledge of the stars and their movements was based on highly developed observation. Using the most primitive means, they were able to fix the position of the polestar, and from this to lay out with astounding precision the north-south axis of the Cheops pyramid. Sights taken upon the stars were also used to determine the position of the cornerstones of temples, upon which great importance was laid. Special offerings were buried at these points, as at Deir el Bahari.

The annual rise of the fixed star Sothis occurred almost exactly at the start of the rise of the Nile floods. Annually it again became visible for the first time in the early morning, shortly before sunrise. The Nile year and the Sothic year corresponded with one another. Sothis and its astronomical variations played a most influential role in Egyptian history (Scharff and Moortgat, 1950, pp. 32-37). All these are scientific observations that have nothing in common with astrological decrees.

The astronomical ceiling of Senmut’s tomb

The Egyptians seemed impelled to endow abstract conceptions with sentient form and poetic charm. We have few insights into the cosmic dream world of the starlit night sky that first appeared on sarcophagus lids of the Middle Kingdom. Of them, none is more intensive than the astronomical ceiling of Senmut's tomb **143** in Deir el Bahari. We shall linger upon it, since it presents the attitude of the Egyptians to the stars more clearly than the scanty written descriptions. It contains an inimitable juxtaposition of precise astronomical facts with dreamlike poetic images, of the same delicacy as the reliefs in Hatshepsut's temple above it. There is no hint of astrological problems. What is drawn is the cosmos itself as the eternal calendar, with the personification of certain cosmic happenings.

The great architect Senmut had the daring to make a mole-like burrow for **415 ff** himself almost beneath the temple court of his masterpiece. Then came his downfall, and probably also that of his queen. The entrance to his tomb was covered with debris. Through thirty-four centuries it lay forgotten, until rediscovered by H. E. Winlock of the Metropolitan Museum, New York, in 1925-27.

More than a hundred steps lead steeply down to the level, exceedingly simple funerary chamber with its drawing of Senmut's portrait just by the entrance. The incompleteness of the tomb is evident from the roughhewn steps of the low entrance tunnel. Only the flat, segmented ceiling of the chamber, with its engraved configurations of stars, has had its surface smoothed. Immediately below, one peers into the black, never-used grave-pit. The project was of the utmost simplicity, and the intense concentration of cosmic representation in so compact a space, together with the tragic situation that caused this tomb to remain unfinished, renders it one of the most moving impressions of Egyptian destiny.

The drawings were finished only in black and white, but their fine line and freshness of execution surpass the colored versions of the starlit heavens on the ceilings of the tomb of Sety I in the Valley of the Kings, and in the mortuary **144** chapel of his son Ramesses II (Ramesseum, Thebes, ca. 1250 B.C.). These seem already to have a hint of classical rigidity.

It is the night sky to which we are introduced, the realm of the stars into which we enter. But the deities of the day move in their boats in this nocturnal society. To them are added the constellations and, with mathematical precision, the delineation of the eternal calendar.

The astronomical ceiling of Senmut's funerary chamber measures approximately ten by twelve feet, and is divided into two parts. A border of several **right** rows of five-pointed stars surrounds each one. In the middle of the central separating band is the cartouche of Queen Hatshepsut — a hint that the drawing dates from the period when the great architect still stood in the glory of her queenly favors as privy councilor of the sovereign's right.

Immediately springing to the eye are twelve circles in one area, identified as the twelve months: "The circles subdivided into 24 sectors arc a new feature of an astronomical ceiling; the connection with the subdivision of the day into 24 hours is obvious" (Pogo, 1930, p. 312).

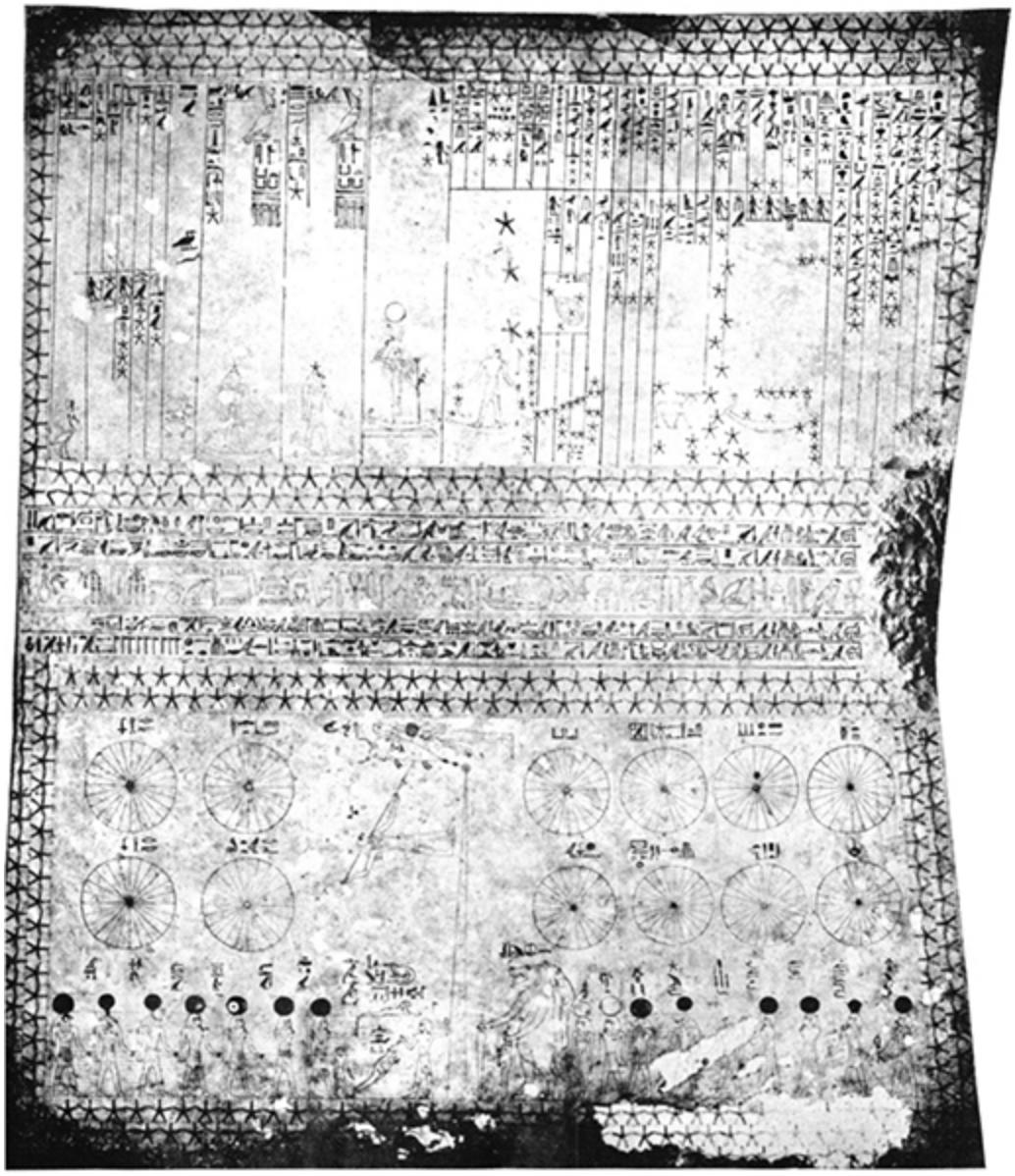
The other, southern part of the ceiling also has temporal indications, this time in columns. The twenty-two short columns (reading from right to left) contain the principal stars belonging to the thirty-six ten-day "weeks" or Decans of the stellar year (Bull, 1923, p. 283). Each week was ruled by the decan star that rose at its start, and each month had three "weeks."

Below this band of short columns, groups of stars hover in free rhythm. It is not difficult to imagine how glittering this star canopy would have been if it had ever been painted.

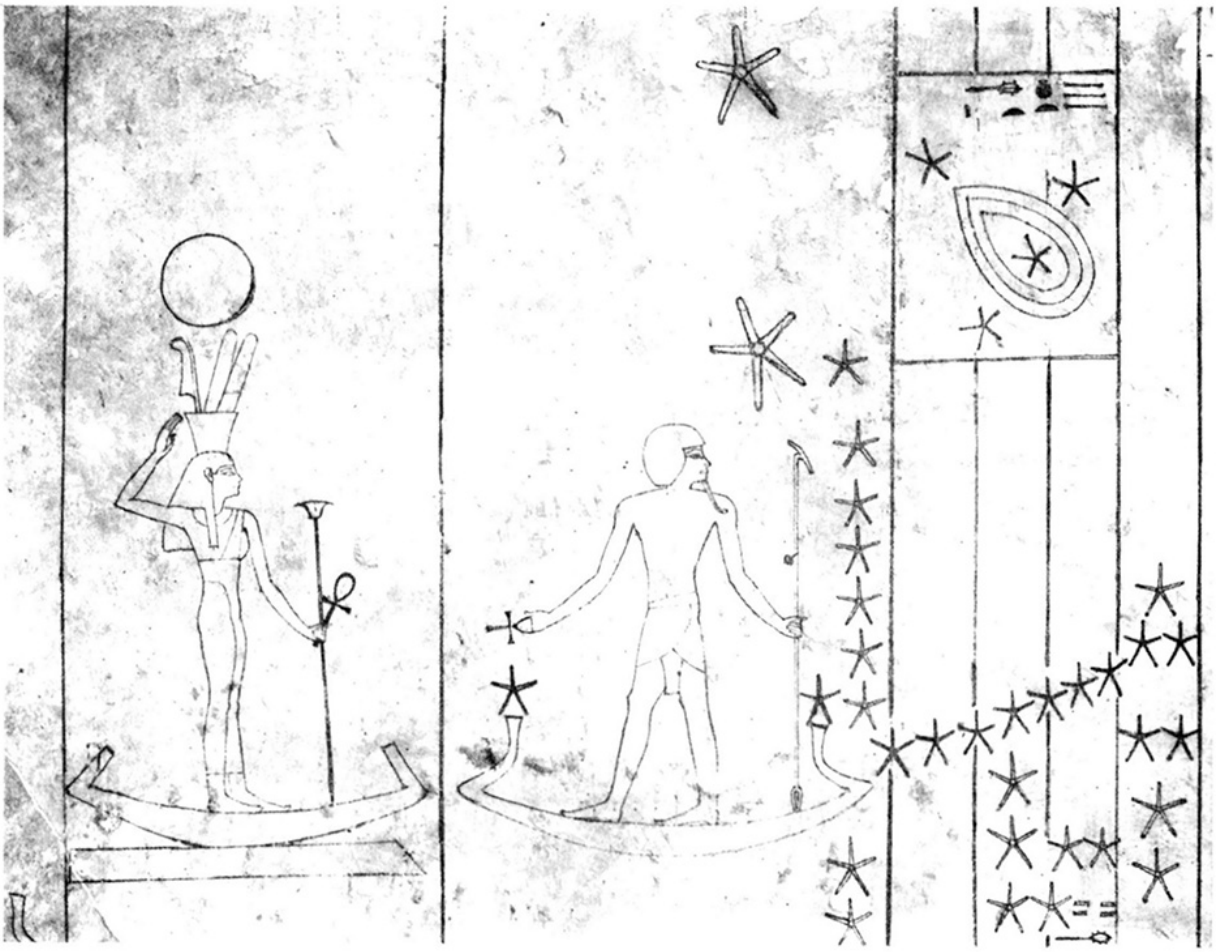
A special position was granted to a constellation of four stars. The central **144** star is framed by three curious lines. These indicate "an egg represented in the Egyptian manner, slantwise with a triple outline. ... It reminds one of the world egg, the origin of the earth" (Röder, 1928, p. 2). This constellation, Sah, had long been associated with Orion. Following one of the later texts, S. Schott identifies the central star with its three companions as Orion (Mercer, 1957, pp. 73-74).

This calendarlike abstract representation now moves into the anthropomorphic sphere. Beside the constellation of Orion, the god Sah himself is represented as a youth, strolling onto his boat, with backturned head, a scepter in his left hand, an outstretched sign of life in his right. He is accompanied by stars. Two have alighted on the bow and stern of the boat.

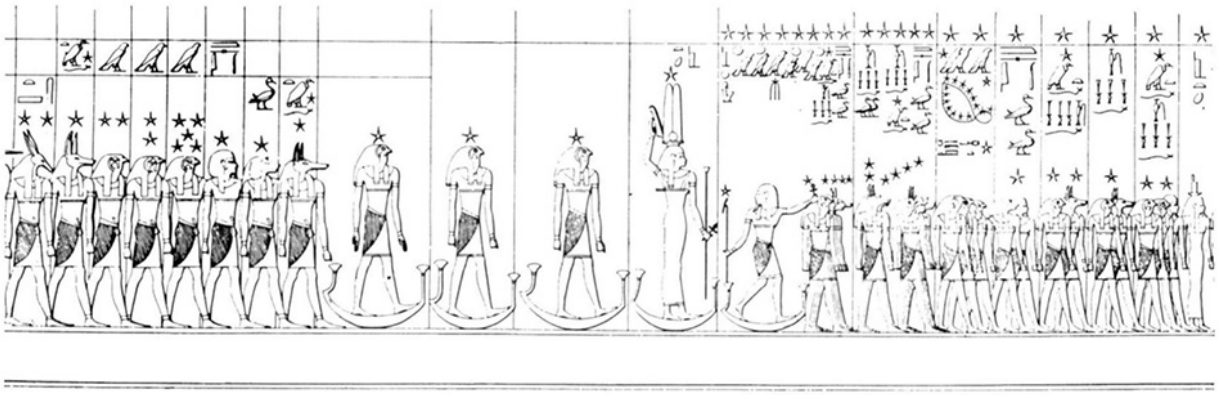
In the neighboring boat stands a slender goddess with raised right arm, a scepter and sign of life in her left hand. Above her crown hovers the rising sun. She is Isis, the loveliest figure on the whole ceiling. With charm, and at the same time with authority, she carries out her dominating role. She was called queen of the decan stars. She guides them, since she was identified with Sothis.



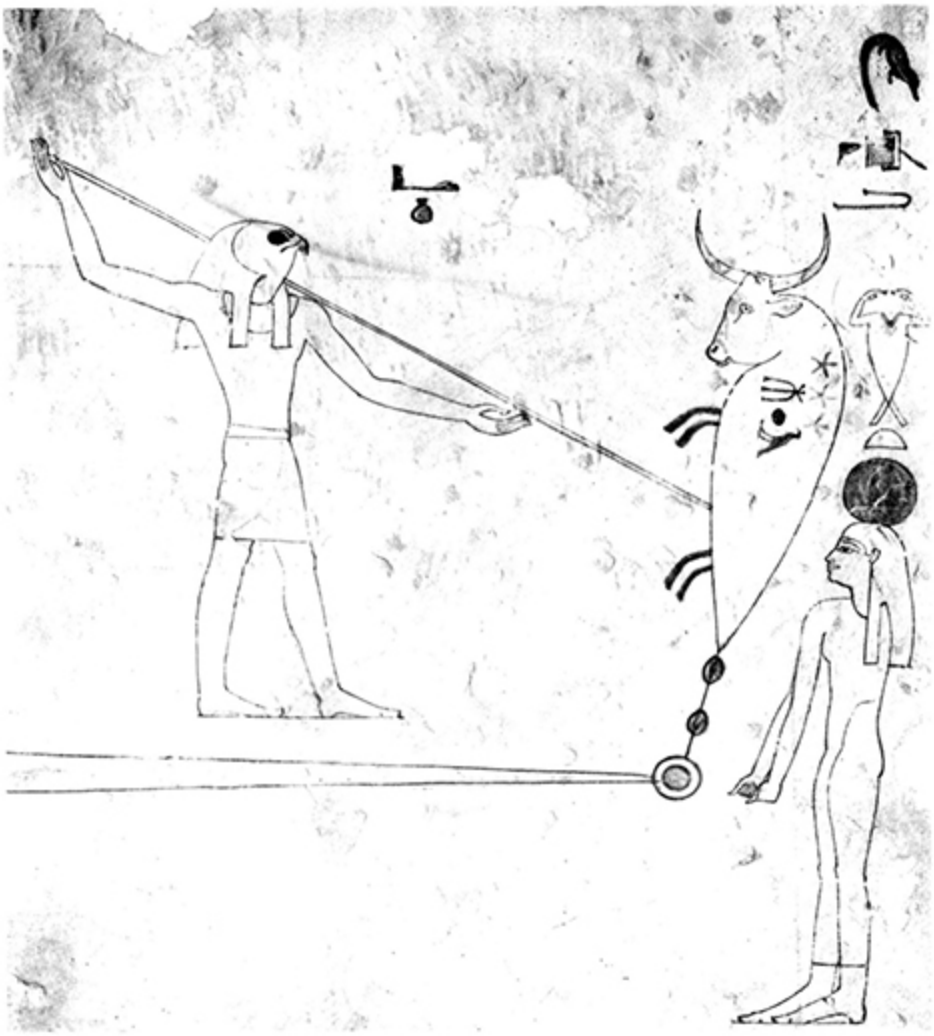
SENMUT'S ASTRONOMICAL CEILING: *This unfinished ceiling of Senmut's funerary chamber (10 x 12 ft.*) *was the first of its kind. The upper part shows the thirty-six weeks of the Egyptian year, the lower part twelve circles representing the twelve months. Both include scenes of deities drawn with the utmost delicacy. Unpainted drawings from Deir el Bahari*



SENMUT CEILING, SOUTHERN PART: *To the right, a constellation of four stars, the central one framed by three eggshell-like outlines, probably the constellation of Orion* (*Sah). Below, a drawing of Sah standing in his boat, a star at stem and stern. Nearby, another boat with the slender goddess Isis, the rising sun above her head*



CONSTELLATION IN TOMB OF SETY I: *Constellations approximately the same as those in Senmut's tomb appear in the tomb of this Ramesside king. The row of animal-headed deities can here be more easily recognized. From Lepsius*



SENMUT CEILING, NORTHERN PART: *Symbolic group of a falcon-headed god, probably Horus (the morning star), directing a staff against a strangely formed bull with a tail of three stars. This sinking night constellation probably represents Meskhit, our Great Bear*

Apart from these purely abstract or anthropomorphic forms, other stars appear as rows of hybrid gods, with human figures and animal heads, as well as whole constellations in purely animal form. Thus there is a symbolic group, in the northern sector, of considerable artistic fascination. A falcon-headed god, **145** probably Horus, who was identified with the morning star, directs a long staff (spear?) against a strangely formed bull: long body drawn out to a point, fragmentary legs, straight tail to which the three round stars are attached. It is the Egyptian constellation of Meskhit.

Some recognize Meskhit as “the well-known Egyptian representation of the constellation Ursa Major" (Pogo, 1930, p. 309). Others doubt the

identification of the Egyptian constellation of the bull Meskhit with our Great Bear (Röder, 1928, p. 4). But this is not important in our context.

To us this scene appears as a mythopoeic parallel to the Orion-Isis scene. That symbolizes the dawn of the new year, this the daily rising of the morning star in the form of the god Horus, who sets his spear against the sinking constellation of night, Meskhit.

Associated with the assaulted bull, standing far back, is the goddess of death, Selkhit, bearing on her head the disk of the evening sun and above it her symbol, the scorpion. Selkhit is often merged with Nut, goddess of the sky. Like her, Selkhit received the sun disk at evening; when this happens, she is shown head-less, **1:217** with outstretched arms.

One cannot overlook two long lines that stretch from the last round star of the bull's tail across the entire northern part of the ceiling. What do they mean? Sighting upon the stars to establish the precise delineation of a ground plan? They have been brought into connection with the ceremony of the stretching of the cords, and Pogo (1930, p. 310) refers to a passage from Brugsch: "I have grasped the peg ... I observe the forward-striding movement of the constellations. My eye is fixed on the Great Bear. I . . . determine the corners of your temple" (Brugsch, 1883, p. 85).

Pogo has investigated the astronomical import of this ceiling and has reconstructed the position of the stars at that period; he believes that this kind of representation is based on a tradition that reaches far back.

The eternal calendar and the interplay of constellations are there as guides for the departed, not as predictions of destiny. They indicate to the dead how the months and years, through which he may eternally continue his life, follow one another. In Egypt the dead need pose no questions to destiny.

PART IV CONSTANCY AND CHANGE IN THE MODE OF EXPRESSION

SCULPTURAL TENDENCIES IN EGYPT

The great differences between paleolithic art and the art of the archaic high civilizations leap to the eye. The astonishing thing is that certain constituent elements of primeval art continue to live on. This cannot be revealed by a simple comparison of forms. The continuity only comes to light when one probes into methods of representation. Then it appears that the methods we considered the **1:293 ff** most telling qualities of prehistoric art — the stress upon outline and the hollowing-out of reliefs — were continued throughout the entire Egyptian epoch, though the process changed to meet a new requirement: the polished stone surface instead of the rough rock face.

The Egyptian was bound to stone as primeval man was to rock. This relation with stone was easy and natural in Egypt, though not in Sumer. The limestone blocks for the pyramids needed only to be transported across the Nile from **72** Tura. The Sphinx at Giza was born from a single spur of rock left over from the construction of the pyramids. The granite quarries of Aswan in the south were inexhaustible.

The Egyptians' preference for stone was due to their desire for eternal duration. For their earthly life, humble bricks — even unburned bricks — sufficed, up to the Late Period.

The painted pottery of Predynastic Egypt bears no comparison with the superb painted pottery from Iran and Mesopotamia. But, in contrast, the stone vases of the Predynastic period and of the First Dynasty remain unsurpassed to this day for the beauty and variety of their form. Every difficulty was overcome to carve them out of the hardest of stones: syenite, diorite, basalt. Later dynasties re-used them to lay beside their dead. Thirty thousand were found in Zoser's mortuary complex at Saqqara, ranging from squat, thick-walled vessels to those of the utmost slenderness, with walls so thin as to be transparent. Jean-Philippe Lauer, who brought the Zoser complex to light, stowed them away in drawers, as in the storage rooms of a warehouse.

Plane surfaces as a constituent element in art

The fundamental invention of Egyptian art was the discovery of the possibilities of expression inherent in plane surfaces. This is valid for the whole of art: architecture, painting, and sculpture. Everything was submitted to the laws of the plane surface. Through the use of this abstract element with the utmost restraint, the highest form of expression was achieved. The pyramids of the Fourth Dynasty, and the obelisks and pylons of the New Kingdom, present the discovery of the surface and its possibilities of expression as an eternal contribution to the development of architecture.

Sculpture in the round also came under the rule of the plane surface. Its three-dimensionality was reduced to the utmost. The limbs of statues were projected by a few parallel or superimposed upright planes. The surface and projection onto the surface is also a feature of Egyptian painting. The body and its limbs are not depicted as they appear at one moment in time, but rather as they are. What a decisive influence this emphasis on the surface had upon Egyptian reliefs will immediately become apparent.

Outlines

To represent an object by drawing its outline is almost a natural gesture. Whenever primitive man tried to give vent to his urge for representation he turned to the outline. The origin of this procedure lies in Aurignacian art, when man traced the first outline of an animal in the cavern clay. What is astonishing is the **1:293 ff** great intensity with which a simple outline could capture the actual nature of the animal.

This becomes apparent if one thinks of the use of the same procedures in African rock drawings. Engravings exist on the rock walls and loose blocks of North Africa and the Sahara (Graziosi, 1942). These follow the same prehistoric principles of representation but remain bound to their primitive forms, lacking the further development and powers of suggestive expression of Aurignacian art.

The representation of an object by its outline has persisted through all periods, including the present. The relative age of rock engravings can only be judged by the nature of the patina and the depth of the lines. Rock engravings were forerunners of the sunken reliefs which Egyptian art developed to such perfection. Not far from the valley of the Nile, numerous

petroglyphs have been found (Massoulard, 1949, pp. 91-106), the oldest apparently dating back to the late stone age or the copper age. A number were found later at watering places in the Nubian desert (Frobenius, 1933, pls. 32-40). Their discoverer himself describes them as "small and petty when compared to the monumental works of the West" (p. 54).

The case is not very different with numerous other rock engravings. Near ancient Coptos, where the Nile is only about one hundred miles from the Red Sea, a caravan route approaches from across the Arabian Desert. Here, in 1932-37, numerous rock paintings were discovered in the Wady Hammamat by H. A. Winkler (1938, I). But these too give little insight into the beginnings of the Egyptian development.

FIRST DYNASTY RELIEF *of a bird: As in prehistory, the outline is formed by hollowing out the surface of the stone. Fragment of limestone stele from Abydos*

FIRST DYNASTY STELE: *The rough surface, smoothed only in the hollows, strengthens the outlines. Limestone stele belonging to a royal attendant. From Abydos*

The Egyptian development becomes interesting immediately before and during the First and Second Dynasties. Here one must refer to existing source material. Perhaps the most immediate insight into this first phase of awakening Egyptian art is given by Petrie's collection of fragments from the royal tombs of the First Dynasty (1901). These tombs were found in Abydos, in raised positions around the crown of a hill. Whether the kings

were actually buried here, or in other graves discovered by Emery in north Saqqara, has not been finally decided.

Hollowed-out reliefs of the early dynasties

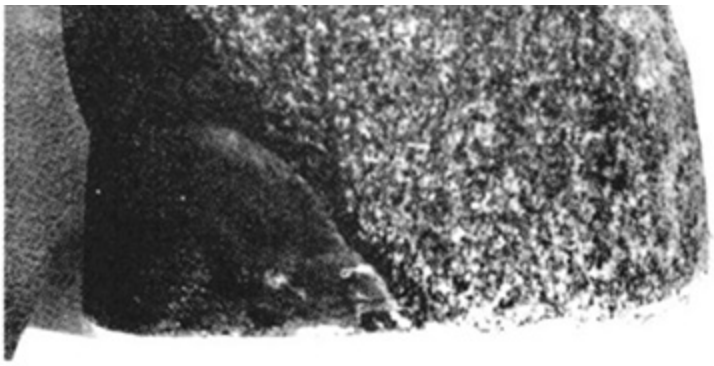
The inscriptions and drawings found by Petrie upon unpretentious fragments of stone vases, of pottery, alabaster, ivory, slate, and ebony almost all have the hesitating engraved outlines of primeval times and North Africa. And yet everything is altered. This is not only due to the hieroglyphs but to something that will later become all-powerful: the orientation to vertical and horizontal and the consequent right angle. Even when the lines are somewhat slanting, the germ is there and the direction is foreordained. We also gain here a rare insight **374** into the reed architecture of a sanctuary of this period.

Reliefs on fragments of steles also show the unsureness of an experimental period, as for instance the relief of a bird on the fragment of a First Dynasty **left** stele in the Ashmolean Museum, found near the cenotaph of King Wedymu in the Thinite Royal Cemetery at Abydos; also another limestone stele, belonging to a royal attendant, found in the neighborhood of the cenotaph of King Zer **left** (1901, p. 33). These fully preserve primeval methods. The outline originates from the hollowing-out of the stone, just as in the reliefs upon the sides of the Min statues from Coptos.

A comparison between these reliefs and a small Venus figurine embedded in **1:444** the rock, which was recently discovered in Les Eyzies (Dordogne), and was carved some fifteen to twenty millenniums earlier, shows how employment of the same methods leads to similar results. This certainly does not imply a direct connection. It relates to a natural occurrence. Just as the child, in a few years, experiences the long early development of humanity, so new developments briefly restore earlier stages of human experience. This is what happened in the art of the first dynasties.

Among the few remaining monuments from Abydos are two approximately five-foot steles of King Peribsen, found near his tomb at Abydos. “They are cut **152** in very compact syenite, and much polished” (ibid.). They have rounded corners. Petrie, who does not say much about procedure, emphasizes that they had to be photographed from the side: “The best result was from the side, by reflections” (ibid.). It is the

experience of every photographer of primeval reliefs that they **1:528** can only be captured with the use of side *lighting — lumière frisée.*



SECOND DYNASTY STELE: *The whole surface is smoothed and the relief skillfully hollowed out. This is an early stage of the fully developed sunken relief. Syenite stele of King Peribsen with rounded corners. From Abydos*

A further link with prehistory is found in the three great statues of Min from **85** Coptos, whose iconographic relations with prehistory have already been described. Petrie, their discoverer, stresses that the reliefs found upon their flanks were made "by hammering the outline as a slight hollow around the figures" (1896, p. 7).

The sunken relief as a light-catcher

The common characteristic of primeval and Egyptian reliefs is that both were sunk into the stone. It has already been stressed that primeval reliefs never projected beyond the profile of the surrounding rock. Again and again a part of the rock surface remains untouched, so that the animals appear to live within the rock itself. A sheet of cellophane would stretch smoothly across the entire relief, unbroken by any projection of the modeling. This holds true even for the most strongly plastic prehistoric reliefs, such as the great frieze of horses at Cap **1:382** Blanc (Dordogne), where the bodies of the horses are often hewn half a meter deep into the rock wall.

In accordance with the totally different situation in Egypt, the sunken relief changes without relinquishing its basic principle. Rock walls are replaced by plane surfaces, but these polished walls are treated in the same manner as the rough structure of the rock. They never lose their inner unity.

The smooth surfaces that came with the beginning of stone architecture must have had a great fascination for their inventors. The gigantic walls of the pyramids repulse any plastic treatment. One could almost say that they inhibit any disturbance of their smooth, polished surfaces by inscriptions or reliefs.

The relief comes as a fundamental innovation in the architectural conquest of the surface through the way its outline is now produced. It is still derived from a hollowing-out process, but this no longer takes the curving shape of a shell. Instead, the surface is immediately penetrated at an angle of ninety degrees. This right angle forms a knifelike edge of great plastic significance. The side caught by the light is illuminated as though by a strip of neon lighting, while the other side is emphasized by a dark line of shadow. The effect of these sharp edges is so intense that outlines are fully visible even under the most glaring sunlight. Even on the black asphalt beloved by the Late Period, the outlines of **158** a figure are brought to life on the sunlit side and stressed by a deep black line on the shadow side.

OLD KINGDOM SUNKEN RELIEF: *Sharply incised outlines on this false door catch the light even in the half-dark funeral chamber of Theta. Giza, Fourth Dynasty*

The sunken relief operates as a light-catcher. It first appeared in the half-dark tomb chambers of the Old Kingdom. As G. Jéquier points out, "the sunken relief, which gives figures an extremely fine silhouette, is formed on one side by a line of shadow, on the other by a track of luminosity" (1924, p. 83).

By the Middle Kingdom, the sunken relief with its sharp edges was already fully developed. It was used on a comparatively small scale, as in an Eleventh **right** Dynasty relief, on the limestone sarcophagus of Kawit, showing the dressing of a lady's hair. The outlines of head, shoulders, and arms are more deeply cut than those of the body surface, body details, and jewelry. The continuous changes of light and shadow, to which the sunken relief is so responsive, become especially striking in details.

MIDDLE KINGDOM SUNKEN RELIEF: *Now the surface is incised at a ninety-degree angle. The knife-sharp edge intensifies the outline by its clean-cut separation of light and shadow. Detail of limestone sarcophagus of Kawit, showing the hairdressing of a lady. Eleventh Dynasty*

The full development of the Egyptian sunken relief came about in the great building undertakings of the New Kingdom, a millennium after its first appearance.

As a gatherer of light and shadow, the sunken relief was destined to cover the mighty temple walls with representations that live within the wall surfaces without destroying them. The surfaces of pylons, obelisks, even the shafts of colossal columns in the half-dark hypostyles, were covered with hollowed-out reliefs, sometimes of considerable depth, as in the hieroglyph "Son of Ra." A **156** scene from Pylon VII at Karnak, in which Tuthmosis III is shown slaying prisoners, **378** shows how sharply the outlines still appear in bright sunlight.

Huge sunken reliefs were also spread across the walls of the half-dark hypostyle halls, reminding one of their early use in the Old Kingdom mastabas. Details of a scene of Ramesses II offering to the god Min, from the south wall **157** of the great hypostyle at Karnak, were then only visible to a limited extent.

NEW KINGDOM SUNKEN RELIEF: *Emblem of the "Son of Ra" with cupule* (5 *cm.) containing an embedded sphere. Karnak*

The sunken relief was never abandoned in Egyptian architecture, not even in the Late Period and Roman times. During the Saite period, which saw revivals of many of the different epochs of Egyptian art, the sunken relief attained the utmost finesse. On Saite sarcophagi, hewn from a solid block of stone, scenes depicting the relations of the dead with the orbit of the sun are etched in lines as fine as those of seventeenth-century copper engravings. Such subtle treatment of a hard stone surface has never since been attempted.

On a black stone from the Thirtieth Dynasty (fourth century B.C.), the **158** kneeling King Nectanebo I is engraved in sunken relief. The Ptolemaic kings continued to ornament the walls of their temples at Edfu and Philae in the same manner; so did the Roman emperors in the temple of Denderah near Thebes, where they are portrayed in the likeness of Egyptian Pharaohs.

NEW KINGDOM SUNKEN RELIEF: *On the half-dark south wall of the great hypostyle hall at Karnak the sunken relief is still used as a catcher of light. Relief of Ramesses II offering to the god Min. Nineteenth Dynasty*

LATE PERIOD SUNKEN RELIEF: *Even on a black stone in poor light, the outlines of this sunken relief are clearly marked by light and shadow. Relief of King Nectanebo I. Thirtieth Dynasty*

In the subsequent history of architecture the sunken relief is comparatively seldom employed. But it may be recalled that — in a simpler form — it has been used in our own period by Le Corbusier in his Unites d'Habitation at Marseilles and Nantes. On their outer walls he has hollowed out reliefs which live within their concrete surfaces.

The abiding quality in all Egyptian reliefs was the supremacy of the plane surface. To achieve this the relief need not always be sunk in,

especially when upon an intimate scale. What was essential was that it be always delicate and always remain within the atmosphere from which it had grown, emerging only as though shimmering through it. This held from the beginning: in the Third **267** Dynasty reliefs of Zoser striding through his "otherworldly" dwelling deep below his pyramid, as in the wood relief of Hesy-ra in the Cairo Museum. The **169** early Fourth Dynasty bearers of offerings (personified estates) to Sneferu in the valley temple of his step pyramid at Dahshur follow the same law, as does the Fifth Dynasty mastaba of Ti at Saqqara, where the surface reliefs are doubly **453** stressed by a second delicate outline. Through this extremely low relief a springtime delicacy developed, as in the reliefs in the pavilion of Sesostris I at Karnak.

In western European art one would expect such a budding, springlike period to grow toward the sculptural and baroque. Nothing of the sort occurred in Egypt. The New Kingdom flat reliefs became, if anything, even more delicate and graceful.

The reliefs of Hatshepsut's mortuary temple at Deir el Bahari present the narrative charm in which the New Kingdom excelled, whether they depict her expedition to the land of Punt or the majestically striding cow Hathor. **423**

Of the different kinds of relief — sunken, low, and high — only the delicate low relief and the sunken relief respect the plane surface. This is especially true of the sunken relief which, as in prehistory, always lies dormant within the stone. When, after a long development, sunken reliefs covered the gigantic surfaces of Egyptian temple walls, their interconnection with the stone achieved a complete unity with architecture.

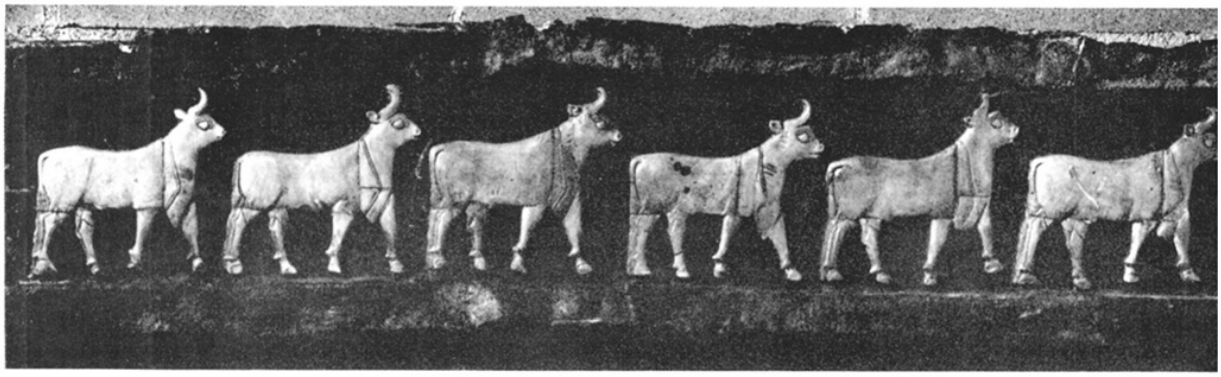
SCULPTURAL TENDENCIES IN SUMER

The attitude of Sumerian civilization toward reliefs was quite different. From the beginning, Sumerian reliefs protruded from the surface plane. The surface was reduced to a back cloth, before which the sculptural scene unrolled. This started with the invention of cylinder seals, whose endless sequences unroll upon a neutral background. Their plastic energy is astonishing, even in the Early Dynastic seal impressions, where the play of light and shadow enables the figures of men and animals to spring out from the flat surface (Frankfort, 1954, pl. 39C). It can easily be argued that, given the small scale of the cylinder seals, nothing else was possible. But the way in which the felicitous invention of the cylinder seal was plastically developed was deeply rooted in the Sumerian *Kunstwollen* (artistic volition).

The Sumerian development was based upon plasticity and contrast. The earliest decisive advance appeared in the Jemdet Nasr period, which is put by some around 3000, by others around 2600 B.C. Its center was Uruk, and it is more exactly known as the Uruk III period. Its material was stone. It produced a rare **104, 121** female countenance, a tall alabaster vase, and various ritual stone vessels. Upon **160** one of these, made of yellow limestone and twenty centimeters high, is a lion who seems less concerned with his vicious attack upon a bull between his claws than with pushing his overlarge head directly out into the void. A smaller lion which stands peering forward near the spout of this libation vessel seems totally unconnected.

! SUMERIAN HIGH RELIEF: *A lion attacking a bull, its whole head projecting from the ritual vessel of yellow limestone. Uruk III period, early third millennium. From Heinrich*

SUMERIAN HIGH RELIEF: *A tremendous desire for three-dimensionality is expressed in the limited volume of this limestone vase from Uruk, on which two bearded heroes (?) protect two bulls from attack by a mythical bird (Imdugud?). Uruk III period*



SUMERIAN INLAID FRIEZE: *A sequence of cattle inlaid in mother-of-pearl contrasts strongly with a background of black bitumen. Part of frieze from temple of the mother-goddess Ninhursag at Al 'Ubaid. Early Dynastic period*

Upon the fragmentary upper part of a limestone vase of the Sumerian Late **161** Protoliterate period (Uruk III), the tumult of battle among various creatures is brought out within the smallest volume: two bearded men fight with two bulls, upon whose backs sit mythical birds. The birds and the "heroes" are oversize in comparison to the bulls. The way one bearded man grapples with both bulls suggests the action of a protective guardian rather than of an attacker. Is it Imdugud, the great bird of prey, who is attacking the bulls?

The vehemence of sculptural high relief is here pushed to an extreme. Between the neck of the vessel and the outward-springing bodies of the men is a perforation, a form of cutting free from the related background, especially clear in the right-hand figure.

With this first appearance of fully sculptural treatment of the human body, every effort was made to break free from the surface. Under a quite different set of assumptions, the tendency was carried further in fifth-century Greek and in Hellenistic art.

In one of the temple friezes from Al 'Ubaid, strongly contrasting elements **left** have been combined. Cattle, ranged one behind the other in procession, are made of mother-of-pearl inlaid against a background of black asphalt. A copper rim heightens the sculptural effect.

What here appears in germinal form is fully developed in a large copper panel that probably stood over the door of the same temple. It shows Imdugud, the **56** lioness-headed eagle, with two stags. The relief is explosive, the figures three-quarters in the round. The eagle's lioness head, the antlers of both stags, and even their tails, spring well beyond the heavy

frame. Such exuberant plastic figures would have been unthinkable in Egypt.

Sculpture in the round

The freestanding sculpture of Mesopotamia had beginnings similar to those of the reliefs. Here too the desire was for three-dimensionality in representations of animals and men. Objects arc modeled on every side, like the offering stand from the First Dynasty of Ur (British Museum), with an upright ram standing amidst widely spaced leaves and flowers (Frankfort, 1954, pl. 28), or the copper statuettes of priests of the Second Early Dynastic period from the altar of the **115** temple at Khafaje.

A high relief in copper of lowing cattle, attached to the front of the Al ‘Ubaid **164** temple, shows a striking tendency toward three-dimensional sculpture: the head of one of them being thrust forward almost completely in the round.

A row of rather large copper bulls is believed to have stood before the façade of the same temple. A single figure gives an idea of their impressiveness. Few **165** other sculptures from this early period show as clearly the extent to which the desire for three-dimensionality had come to be expressed.

An unusual impression of high-strung vitality emanates from this heavily oxidized copper figure. But the oxidation is a chance augmentation. What is certain is the sense of instantaneous movement: head turned sharply to the right, tail slightly curved, feet poised momentarily upon the ground, with the hind legs wide apart and the front legs closer together.

Every detail is carefully considered, from the shape of the hooves to three folds of skin above the eyes. The belly falls like a bag: one senses its fleshiness. Such a vivid grasp of naturalism would be impossible in the Egyptian method of representation. With a three-dimensionality hitherto unknown, this animal takes possession of the space around it.

When H. R. Hall and C. L. Woolley discovered the bull in 1919 it was completely flattened out. They state: “The body was first carved in wood, a mere trunk without head, legs, or tail; these were made separately. . . . Then this core was given a thin coating of bitumen and over it were hammered plates of thin sheet copper” (1927, p. 84).

This great three-dimensional impulse of the first half of the third millennium was never carried further in Mesopotamia or the Near East. Time waited for Greece to drive sculpture in the round to an unforeshadowed development.

The strongly plastic handling of Sumerian reliefs can be seen in a square, pierced tablet from Lagash, which Frankfort takes to be a "support for a mace" (1954, p. 33). It depicts Dudu, high priest under Entemena. Above is the ***57*** lioness-headed eagle Imdugud with two lions, to the left a calf, half kneeling, and to the right Dudu, wearing a kilt, the upper part of his body bare.

Broad bands separate each subject from the others, effectively destroying the background surface.

This propensity for strongly plastic modeling, which arose in the first part of the third millennium or shortly after, later faded. But its principle — sculptural figures before a neutral background — was never to be dropped. It can be followed throughout Near Eastern art, from the stele showing the victory of **60** Eannatum of Lagash over his enemies — the so-called vulture stele — and the **123** stele of Urnammu depicting the erection of the ziggurat of Ur around 2000 B.C. up to the huge reliefs of the Late Assyrian kings of the eighth century B.C. from the palace of Sargon II at Khorsabad. Here the figures of the king and his courtiers are oversize and the whole scale of the relief has become pretentious (120 in. high). Nothing exists apart from it: the background surface has become totally absorbed (ibid., pl. *96)*. More modest in scale, but just as insipid emotionally, are the long sequences of figures ranged one after the other on the walls of the stairway of the palace of Darius and Xerxes at Persepolis, finished in the **461** fifth century B.C., just before the decay of the great Persian Empire.

SUMERIAN HIGH RELIEF: *The head of a cow pushes forcefully out from a copper panel once attached to the wall of the Al 'Ubaid temple. True sculpture in the round is achieved and the relation of the relief to the wall has become nonexistent. Early Dynastic period, middle of third millennium*

COPPER STATUE OF STANDING BULL: *Highly developed three-dimensionality. All details of the body are shown in full immediacy and vivacity,* 11. *62 cm. From the temple at Al 'Ubaid, Early Dynastic period, ca. 2500* B.C.

THE USE OF COLOR

The glowing freshness exhibited by the colors both of primeval times and of Egypt comes from the use of the same imperishable materials: earth colors, giving yellow, brown, and reddish hues. Then as now, ocher was used: ocher, whose reddish pigment seemed to symbolize blood and was thus strewn over the dead both in Aurignacian times and in Predynastic Egypt.

Black was obtained from a kind of carbon, as in primeval times, when it was used with the manganese oxide of the caverns.

With the discovery of copper and its oxidation, new hues came into the color scale. The intense blue and, above all, the sharp malachite green at first exercised an enormous fascination. Mixed with a binding material, the latter was used as a cosmetic for ritual adornment on occasions of high festival, and this use persisted. The noble cosmetic palettes of the First Dynasty have in the center a circular cupule in which to rub down the malachite. Palettes were given to the dead so that they could adorn themselves properly on ritual occasions, or, like the famous Narmer palette, they were consecrated by the king to a temple: in this case to a sanctuary in Hierakonpolis, Upper Egypt.

The blue, which looks so luminous in pictures and the intensity of which has never again been attained, "consisted of a crystalline compound of silica, copper and calcium” (Lucas, 1948, p. 392).

These imperishable, radiant colors and the avoidance of shadows expressed fully the optimistic nature of the Egyptians.

Although, particularly in the New Kingdom, palaces and private houses were painted, as in Tell el Amarna, the funerary monument always was and always remained, from the pyramid age on, the true field for painting. This was so from the beginning of the Third Dynasty (remains of painting in the Hesy-ra chapel at Saqqara), through the beginning of the Fourth Dynasty (painting in Atet’s mastaba at Medum and the rock graves of Beni Hasan), up to Hatshepsut’s magically delicate paintings at Deir el Bahari and those in the deep rock-tombs of the Ramessides in the Valley of the Kings near Thebes.

PREHISTORIC AND EGYPTIAN METHODS OF REPRESENTATION

The custom in prehistoric art of representing the body of an animal in side view, the legs and hooves from the front, the head in profile, and the eye again from the front, Abbé Breuil called *perspective tordue.* This method of representation does not imply twisted or distorted perspective. It has nothing to do with perspective. It means the simultaneous representation of an object frontally and in profile, in order to set forth its true character in the clearest form.

Not only the Egyptian and Sumerian, but all archaic art, including the early Greek, retained this simultaneity of representation, e.g., showing the head in profile and the eye frontally. This resulted from the supremacy of the new concept **Part XI** of order. From then on, everything had to be projected onto the vertical or horizontal plane, with the vertical playing the more important role.

The comparison of a rare prehistoric relief with a famous Egyptian relief may give a closer insight into the continuity and change of means of representing the human figure.

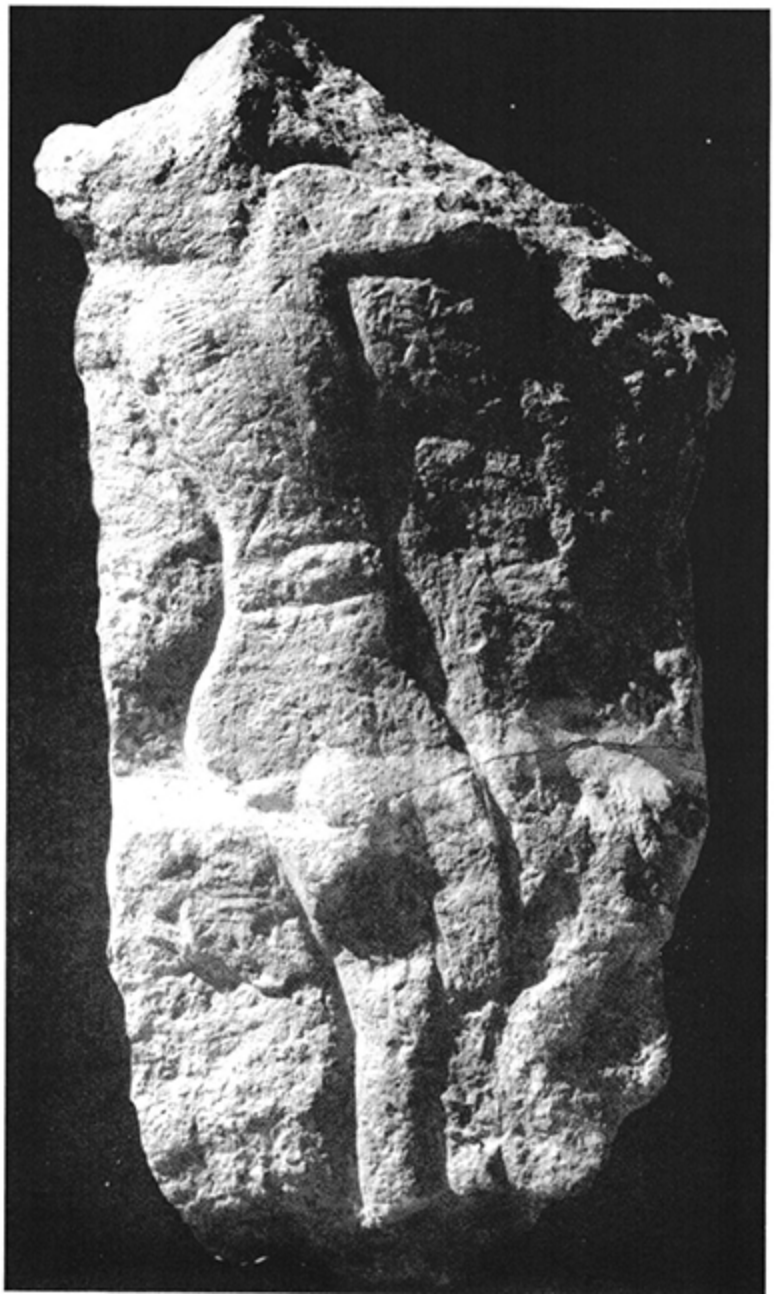
A prehistoric relief: the man of Laussel

The prehistoric relief of a standing man (height 47 cm.) was found in the sanctuary of Laussel (Dordogne), slightly above the Aurignacian level. It belongs **1:474** to the comparatively short period, reaching from the Solutrean to the Magdalenian age, during which prehistoric sculpture flourished. After this, sculptural development was discontinued for thousands of years, until it reappeared with the utmost vehemence in Sumer and Egypt.

The upper part of the body of this standing man from Laussel is turned to the right, with the left shoulder forward — a posture today called the boxer's stance **168** (in contrast to the wrestler's position). The outstretched left hand is still partly extant, the raised right hand only just indicated. It is

unimportant in this context whether we have before us an archer or, as was later assumed, a spear-thrower. The heavily damaged head is indicated in profile, the upper part of the body in a three-quarter turn. The right side of the chest is slightly modeled and the line of the thorax is suggested, as is the navel. Two deep horizontal lines across the hips, indicating a girdle, are conspicuous.

The lower part of the body with the right leg slightly advanced is shown, like the head, in profile. This narrow-hipped male figure is remarkably slender. Its outlines are incised with a firmness and sensitivity normally found only in the representation of animals.



PREHISTORIC RELIEF *of a standing man, from Laussel (Dordogne),* h. 47 *cm.*

THIRD DYNASTY RELIEF *of Hesy-ra: Wooden panel (height of figure 54 cm*.). *From his tomb at Saqqara*

This relief from the early Solutrean period and an Egyptian relief both show the so-called boxer's stance: body turned to right and left shoulder advanced. In both, head and legs are in profile. The Egyptian relief also retained the girdle and the nakedness which, in solemn rituals, was often carried over from primeval **115** times, as in the copper statue of a priest from Khafaje.

An Egyptian relief: Hesy-ra, Third Dynasty

Ten millenniums or more lie between the Third Dynasty relief of Hesy-ra **169** (height of figure 54 cm.) from his Saqqara tomb (ca. 2630 B.C.), and the relief of the prehistoric man. The intensity of this wood relief of one of the great officials of the court of Zoser shows the first efflorescence of Egyptian art. It is the most beautiful of the five standing and sitting representations of Hesy-ra that Mariette found in the niches of the inner corridor of Hesy-ra's tomb.

The head is modeled in sharpest profile. The outline of the upper part of the body is simplified almost to the form of a trapezoid. The accentuated shoulders are turned frontally, while the slender, boyish hips and legs, in walking position, are seen from the side.

It is the representation of a man whose every feature betrays that he was accustomed in life to command. All details in this wood panel are engraved almost microscopically. Each strand of hair in the wig is clearly marked. In his left hand, Hesy-ra holds a staff, together with writing equipment — the stylus with its case, bag of colors, and board with attached inkwell — turned into the frontal plane. His right hand grasps a horizontally held scepter.

The entire posture is concentrated on a moment of action, with mouth, nose, eyebrows, and jaw tense and prominent. The fact that the eye is placed in the frontal position is hardly noticeable. In spite of the relentless expression, all brutality is absent. The carefully elaborated details emanate a harmony and charm which is part of the mystery of these early times, found also in the reliefs **267** of Zoser's "underground residence" in his tombs at Saqqara.

The details of the Hesy-ra relief appear so spontaneous that one tends to forget that everything was calculated and arranged to the last detail. With the head in profile, the shoulders and the upper part of the body *en face,* and the extremities viewed from the side, the vertical plane becomes a constituent element in the structure of the relief. Everything appears to be turned about the vertical plane. Front view and side view form two planes at right angles to each other. Everything is related to this.

The contrast between this convention and the freedom of direction of the primeval relief from Laussel lies in the reduction here to two planes standing at right angles to each other.

How are the different parts of the body projected onto these two vertical planes? It may be that the side and the front views were considered as of equal importance, although the side view was most frequently employed and always used for the great numbers of figures ranged in sequence that appeared throughout Egyptian art. The freedom the Egyptian artist allowed himself lay in the choice of which detail of the body was to be represented frontally and which in profile. This is already conspicuous in the placing of the eye *en face* while the head is viewed in profile.

Although every detail is carefully indicated, the representation evades immediate grasp. How are the chest and the lower part of the body portrayed? Frontally or in profile? Where does the borderline lie?

This question was raised in 1887 when Adolf Erman noticed — or, as Heinrich Schäfer expressed it, "discovered" — that the navel in the Hesy-ra relief is drawn to the side. Also the nipple and the swelling of the breast are shown in profile. Erman explains this as follows: "The body comes out in the most confused fashion. The shoulders are given in front view, whilst the wrist is in profile, and the chest and lower part of the body share both positions. With the chest, for instance, the further side is *en face,* the nearer in profile, the lower part of the body must be considered to be three-quarter view, as we see by the position of the umbilicus" (tr. 1894, p. 398).

Everything seemed to tally in this explanation, which grew out of the nineteenth-century approach to pictures. But in 1919 Schäfer pointed out that this "naturalistic" interpretation was "impossible and confusing" (p. 170), for it could never have occurred to an artist of the Old Kingdom that the various elements with which he built up his picture needed a logical mediator.

A three-quarter view would mean the transfer of our modern viewpoint to the Egyptian way of seeing things, but this viewpoint is incompatible with the Egyptian mentality. "There is not a single definite example in the entire period of the Old Kingdom which shows an individual body or part of a body — in this case the human belly — in three-quarter view" (p. 172).

Schäfer rightly objects to the notion of a three-quarter position. His next step, however, is incomprehensible to us, for he assumes that in the relief of Hesy-ra a profile view of the chest follows the frontal placing of the shoulders. He finds support for this in the outline of the breast with the nipple and the sideways-pushed navel. The contour to the left is explained as the line of the back (p. 173).

This puts the entire method of portrayal in question, and thus affects the whole of Egyptian art. On what principle is the separation of two planes effected, one of which must stand at right angles to the other?

In this case, where does the division come between the shoulders seen *en face* and the chest seen in profile? Everything else is clear in the Hesy-ra profile relief, but here the portrayal suddenly becomes blurred. A sudden jump from one plane to the other at this point is inconceivable, since in Egyptian art the clear swiveling of the plane is always found at the joints.

However, when the head is shown from the side, its most important part, the eye, is shown frontally. Thus, when the trunk is represented frontally, the breast is shown in profile. This simultaneous representation of side view and front view, which in part went back to prehistoric times, became a general rule.

The place where the frontal view of the upper part of the body joins the lateral view of the lower parts and the legs is located on the decisive borderline, just above the hip joint. The breast itself is pushed to the side at an angle of ninety degrees.

This separation of the human body into its natural parts and joints — head; shoulders, chest (upper part of the body); pelvis and legs (lower part of the body) — occurs in this portrayal in the sequence which, once established, is continuously **479 ff** repeated in Egyptian art: lateral-frontal-lateral views.

During nearly three millenniums, up to their last works in Roman times, Egyptian sculptors never changed this method of representation. Reliefs of male or female bodies were always portrayed with a single breast, usually the left **right** one, as in the sculptor's model at the Metropolitan Museum of Art in New York, where a Ptolemaic queen of the second century B.C. is represented in the form of a goddess. On its own soil the long Egyptian tradition proved stronger than the new impact of Greek development.

PTOLEMAIC RELIEF: *Upper part of body is depicted frontally with one breast in profile. This method of simultaneously representing front and side views had been used for nearly three millenniums. Sculptor's model of a Ptolemaic queen. Second century* B.C.

PART V THE ORIGINS OF MONUMENTAL ARCHITECTURE: MESOPOTAMIA

Mesopotamia is the birthplace of architecture.

In early Mesopotamian temple buildings, a curious phenomenon can be observed that stands in contrast to the later development of both the archaic high civilizations. This is the care taken in shaping the interior space of the shrine. It is as if we stood at the origin of the space development which set in some **Part XII** millenniums later with the Pantheon in Rome, and which still continues today: the molding of interior space.

How did this early trend toward forming a temple by hollowing out its interior space and giving ample access to the ordinary people arise? Why was it interrupted and cut short?

Direct contact with the deity drew to an end with the rise of the first empires. An all-powerful mediator then came between man and god: the priest-king. Free access to the deity gradually diminished. The image of the god was placed in a dark cell to which none but the mediator had access. This phase appears in its most monumental form in Egypt. The shaping of the interior space had become meaningless from a ritualistic point of view and thus an architecture developing from the formation of interior space dwindled away.

1:371 Earlier we indicated how in prehistory an age of sculpture could begin, vanish for thousands of years, emerge again under quite different social and cultural conditions, and thereafter remain permanently in the foreground. Something similar to this occurred at the dawn of architecture.

In the early temple precincts, e.g., Eridu, Tepe Gawra, Al ‘Uqair, Tell Asmar, Uruk, the interior of the temple was well articulated. How could this anticipation of later development come about at the beginning of architecture?

The basis for it is to be found in the relations between man and the invisible forces. In prehistoric times the most secret rites were performed in hidden places, in inaccessible depths of the earth. There, too, the most sacred symbols were depicted.

During the great period of upheaval, when the first stable human settlements were coming into being, a gradual change took place in man’s relations with the invisible powers. How was contact to be made with them

in the age of agriculture? And what form was to be given to the place where man held intercourse with them?

The earliest temples provide information about the time of their building and the architectural form that was developed. The dwelling place, the abode for the god, was erected on the model of the human shelter.

In prehistory there were many signs that man could build a shelter for himself: a lean-to of wattle and daub against a rock wall, or a hut formed in one of many different ways. But when more permanent settlements came about in neolithic times, fragile, tentlike shelters were gradually replaced by solid dwellings. Such a solid dwelling would house both the living and the dead, as well as, in a corner, female figurines or charms promising fertility. The house was all in one: the house of the living, of the ancestors, and of the helpful, protective household spirits.

When, in the fifth millennium man built the first small sanctuary in Mesopotamia, it signalized a separation of the world of the spirits from his private abode. Though this first shrine, built in Eridu, was still shaped like a house, it **191** served the whole community as a center for intercourse with the surrounding invisible forces, and its offering table and altar provided opportunities to serve them.

So, in the earliest stage of the development of architecture, the temple took the form of a human habitation in which invisible forces, and later the deity, were presumed to dwell.

From the ground plan of Sumerian temples it is quite clear that in this early period the faithful had direct access to the altar and to the entire interior. The earliest temple contained an offering table or altar. It was only much later, after the anthropomorphic gods were installed, that an image of the god was placed at the farthest end.

The architectural model for the earliest temples was the newly developed blocklike dwelling house, rectangular or almost rectangular in ground plan. This regular rectangular house, which has remained even to this day the standard form for a dwelling, had evolved only after centuries of experimentation with innumerable variants.

THE FORMATION OF THE HOUSE

This is not the place to go into details of the complicated and by no means yet clear development of the human shelter, even though investigations into its origins are becoming increasingly refined. The subject is no longer left solely to the archaeologist. He has been joined by a team of specialists in the fields of climate, paleolithic botany and zoology, the domestication of animals, and the uses of carbon 14 (Braidwood and Howe, 1960). The development of the human dwelling, from prehistoric structures to the patio house in Mesopotamia around 2000 B.C., is given here in the briefest outline. The rectangular house, with rectangular ground plan and upright, rectangular walls, was the end product of an immeasurably long development.

Prehistoric structures

The primeval plan for a hut was a circle, that form which is the basis of so many prehistoric symbols. Like birds who build themselves round or oval nests, man just scraped out for himself round or oval hollows in the ground.

The Magdalenian reindeer hunters of Ahrensburg, near Hamburg (ca. 12,000 B.C.), have left numbers of stones arranged in circles. These were used to hold down the walls of their tents. Their discoverer, A. Rust, assumed that each site was used only once by the hunters. Sometimes a second band of stones was added to protect the hollowed-out dwelling floor from flooding by rain water (1958, pp. 47-54).

It seems that the earliest verifiable dwelling places were trough-shaped or saucer-shaped depressions in the ground. The most numerous examples are in Russia: in Gagarino (Tambov), “where S. N. Zamiatnin discovered the lower part of a habitation in the shape of a shallow pit, the walls being strengthened with a row of stones” (Golomshtok, 1938, p. 325), in Kostienki (Voronezh), and many other sites from the Aurignacian and Solutrean eras. A number of female cult figurines were found in these dwellings, which are believed to have been roofed.

These dwellings gave rise to the view that "the technical germ of the house is . . . the straight or curved wind shelter, in other words the roof. This gives rise to the two basic ground plans of all architecture, the curvilinear and the rectangular structure" (Menghin, 1939, p. 427). It is known that wind shelters were used in the Aurignacian-Perigordian era, as D. Peyrony indicated on good evidence: "They established a shanty beneath the rock overhang of La Ferrassie by leaning timber up against the cliff and securing the base with stones and rubble" (1934, p. 90).

It is far more probable, however, that the starting point for the house was provided by the form of its dwelling area rather than the shape of its roof.

The circle around a fire, the circle around the hearth, had pride of place, and circular or oval single-roomed huts appear as a primitive form of dwelling over the entire world, sometimes grouped to make a many-roomed house.

The forms of human habitations in Aurignacian times may always remain unknown. The Magdalenian age, which reaches some ten to twenty millenniums back, left representations of various shelters, which give hints of some kinds of construction then existing.

Prehistoric man did not record the objects of his immediate environment, and it is scarcely possible that his rock engravings represent ordinary human dwelling places or "animal traps" — a name often given to his tectiform or rooflike symbols. It is more likely that these engravings depict soul houses or ancestor houses for the spirits of men or animals. Such sacred shelters are still numerous in existing primitive cultures, and a Predynastic Egyptian model house of burnt clay with a tray for offerings to the dead belongs in this category.

La Mouthe

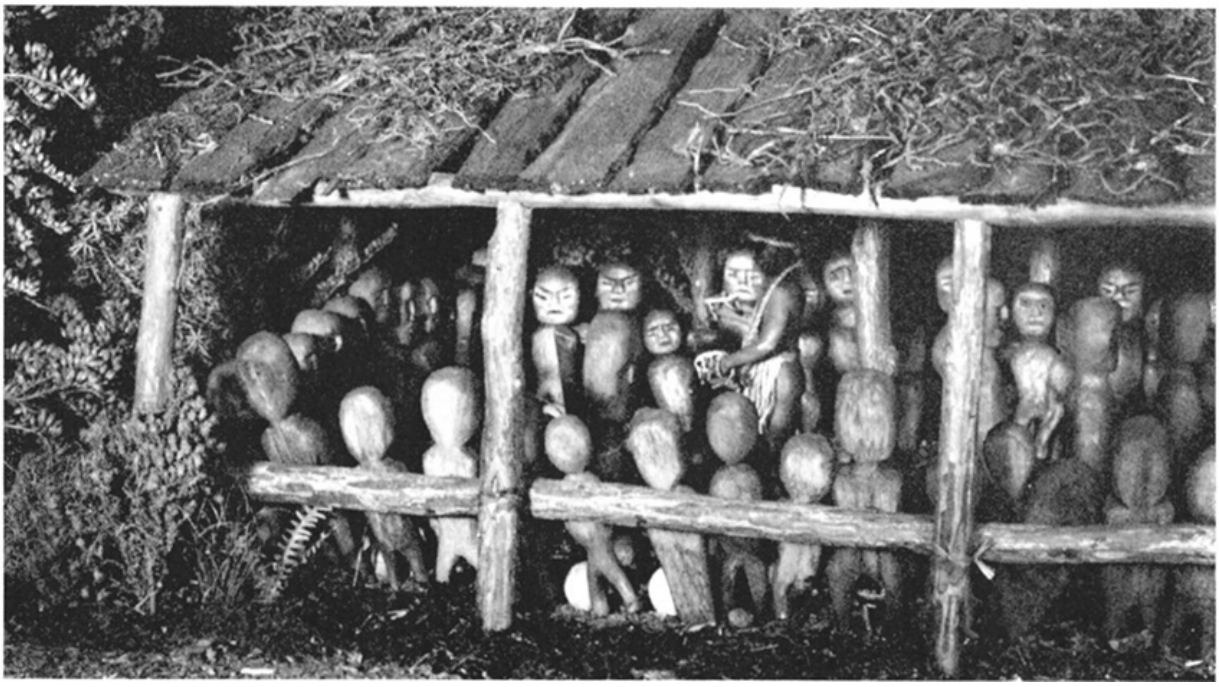
The concept that prehistoric rock engravings of shelters represent soul houses comes out perhaps most graphically in a hut of posts and branches shown on the rock wall of the cavern of La Mouthe (Dordogne). This occupies a position of **180** special importance and is, certainly not accidentally, superimposed over a great number of small animals visible in Abbé Breuil's drawing. The repeated rhomboid-shaped parts of the roof seem to be leaning against a rock wall supported by posts.

We have noted earlier how the art of the Pacific Northwest Indians shows an **1:182** amazing similarity to the earliest prehistoric sculptures. It also appears likely that the "secret shrine" of a Nootka Indian whaler can provide some insight **180** into these early representations of shelters, since it is known that the small puppets it contains embody the souls of earlier whalers.

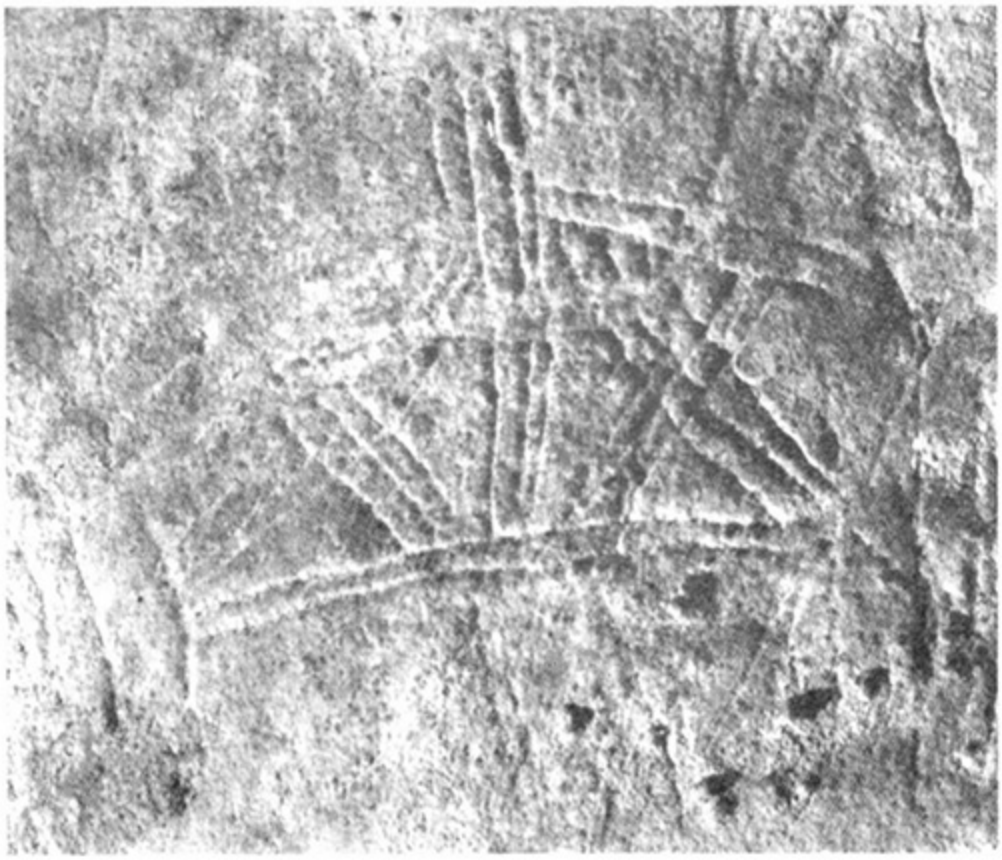
Font-de-Gaume

Numerous tectiform engravings of roofed structures, often clustered together as **181** in the cavern of Font-de-Gaume, show an astonishingly advanced knowledge of frame construction.

REPRESENTATION OF PREHISTORIC HUT *in the cavern of La Mouthe (Dordogne): The hut is superimposed over a number of carefully incised and painted animals. Its rectangular roof is seen on the right from above, supported upon posts that are drawn not straight but curved. Magdalenian period. Drawing by Breuil*



MODEL OF SECRET MAGIC SHRINE *of a Nootka Indian whaler on Vancouver Island*



TECTIFORM *representing skeleton construction of a prehistoric hut, incised high on the rock wall of the cavern of Font-de-Gaume (Dordogne). Magdalenian period*

VAULTLIKE ENGRAVING *on a natural hollow in the cavern of Font-de-Gaume (Dordogne*): *The real significance of this apparent barrel vault is unknown*

Barrel vaults also seem to have been known, as indicated by repeated parallel **181** lines engraved on a natural rock niche, also in the cavern of Font-de-Gaume.

Neolithic Egypt

Man-made circular and oval pits or hollows have also been noted in neolithic Egypt. Along the shore line of the former Faiyum lake, G. Caton-Thompson found numerous large circular fire pits or hearths, as well as straw-lined granary pits, many three to five feet in diameter and around a foot deep (Caton-Thompson and Gardner, 1934, pp. 24, 41-42). In northern Mesopotamia “great spherical grain bins built of clay, coated outside with bitumen and sometimes lined with gypsum plaster" (Lloyd and Safar, 1945, p. 262), were also found in the lowest levels of Hassuna.

In Merimdeh, southwest of the Nile delta, Junker excavated two irregular rows of oval huts which were at times almost kidney-shaped (1940,. p. 10). These also were slightly sunk into the ground like the saucer-shaped dwelling places of Kostienki, Russia. Round "cellars," built, curiously enough, just before the breakthrough of the rectangular house, have been found dug into the ground up to one meter in depth, as at the early settlements at Ma'adi (Menghin and Amer, 1932, p. 19) and El 'Omari, both about six miles from Cairo.

In referring to the development of tombs in Upper Egypt, Scharff states that "these were at first circular or oval pits which became rectangular as a consequence of being lined with tiles made from Nile mud" (1939, p. 439).

Khirokitia

The standard form of the house was only established after long groping: round houses, oval houses, houses with sloping walls pitched to meet together, and the rectangular house. There were also numerous combinations of round houses **185** and rectangular houses, as in the fourth-millennium settlement of Arpachiyah, excavated by M. E. L. Mallowan. All had been tested out before the strictly rectangular house emerged and, with it, the temple bounded by rectilinear walls.

On the island of Cyprus, forty miles from the coast of Asia Minor, a settlement of several hundred circular domed huts (tholoi) has been discovered at Khirokitia. Forty-eight were excavated and precisely recorded by P. Dikaios. He found the "total deposit of about 4 m. packed with tholoi, small and large. . . . Some of the Khirokitia tholoi have a noteworthy feature in common with those of Arpachiyah, namely, the rectangular antechamber" (1953, p. 333). But this chamber is very much shorter. Khirokitia is early in comparison to other settlements in the Aegean area. In absolute chronology its dwellings are now dated to the middle of the fourth millennium, with 3700 B.C. as the upper limit. Arpachiyah dates from the beginning of the fourth millennium, but the stone vessels of Khirokitia cannot be compared with the elaborately designed ceramics of Arpachiyah. Khirokitia was a frontier settlement. Just where upon the Asia Minor mainland its direct antecedents lie has not as yet been ascertained.

The most interesting feature of the Khirokitia dwellings is their internal organization. They had an upper floor covering half the area of the ground

floor. This division is still usual in the rectangular house plans of the Greek islands, and Le Corbusier reintroduced the age-old principle in his Pavilion de l'Esprit Nouveau, Paris, 1925. When he visited the Greek islands in 1933, together with several friends, he took out his tape measure, and I remember his delight when he found that the floor-to-ceiling heights of the houses (226 cm.) corresponded exactly to the dimension he liked to use and later incorporated in his Modulor system.

Orchomenus

Even in a comparatively late period of development — Orchomenus in Helladic **184** Greece (ca. 2000 B.C.) — Heinrich Bulle found a row of stone circles (up to 6 m. in diameter), sometimes widened to an oval shape, directly upon the rock base (Wace and Thompson, 1912, p. 195). It was only above these that the first approximately rectangular plans were found.

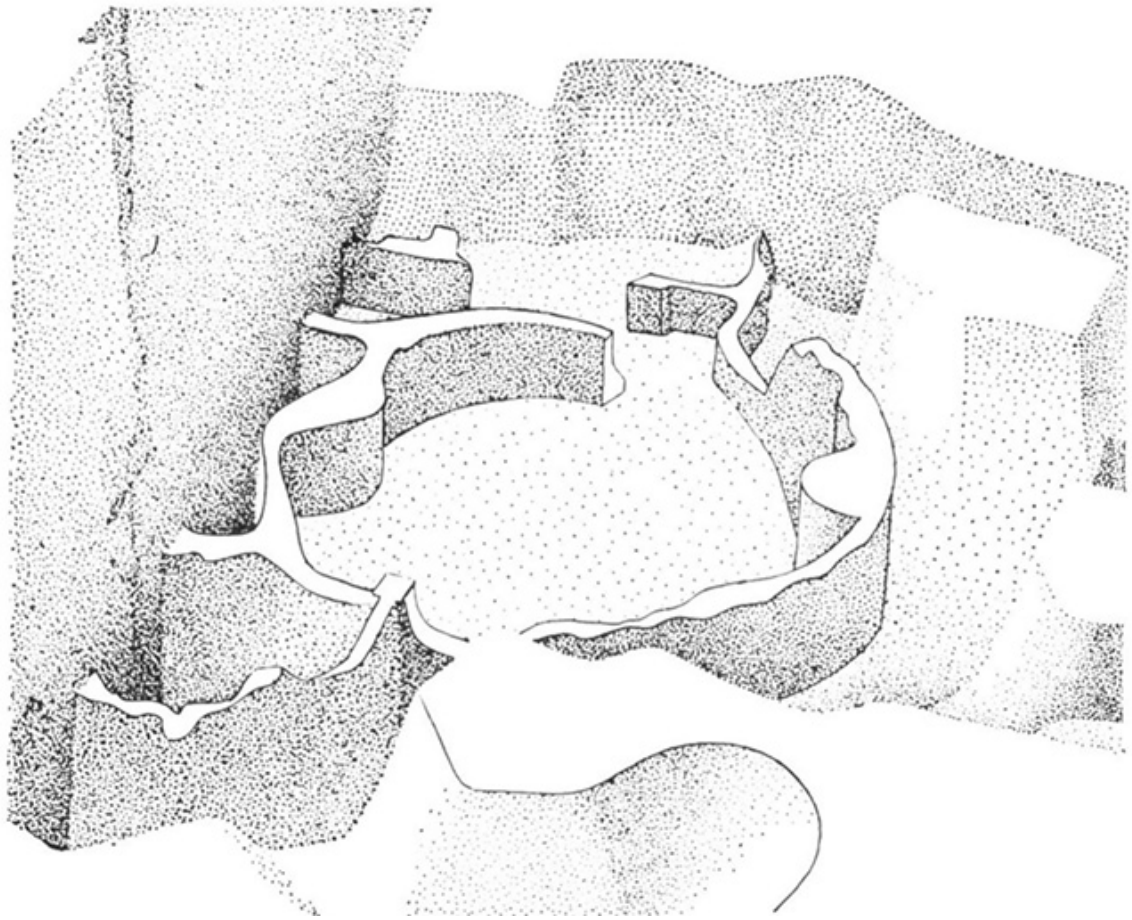
Earliest Jericho

The excavations of Jericho by Kathleen Kenyon still remain enigmatic in the whole story of the development of the house and the human settlement (1957). Their amazing fortifications and partly excavated rectangular houses can be dated back to pre-pottery ages, and — according to carbon 14 — to between the middle of the sixth and the middle of the seventh millennium.

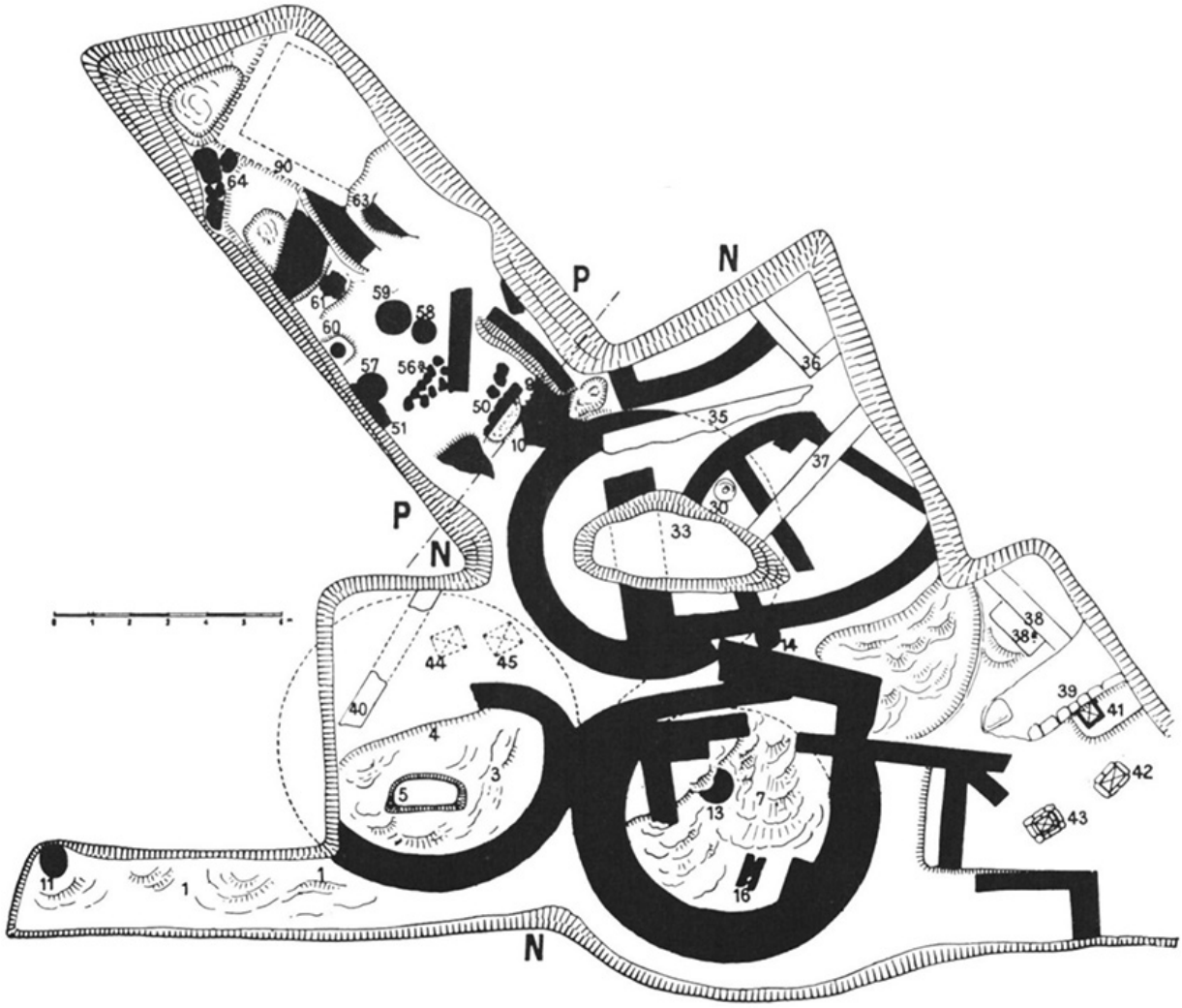
Çatal Hüyük

Still more astonishing are the discoveries of a new civilization in Anatolia' made by James Mellaart at Çatal Hüyiik, about 250 kilometers south of Ankara. Çatal Hüyük (double hill) covered a city of several thousand inhabitants, encompassing thirty-two acres. So far, during the seasons of 1961, 1962, and 1963 Mellaart has unearthed ten strata which he dates back to the sixth and seventh millenniums. In level VI he cleared a complex of forty well-equipped chambers, including four shrines, all with rectangular or nearly rectangular walls. However, "not a single house was entered directly from a courtyard or the street: on the contrary the only way in and out was via the roof" (1963, p. 54). From level II to level VIII the shrines contained large bulls' (or cows') heads similar to the bucrania of several

millenniums later found by Emery around a mastaba in north Saqqara (1961, p. 71). Nothing at all like this city has been found in the birthplace of architecture—Mesopotamia. Here in Anatolia a civilization existed whose origins and aftermath are unknown: which apparently came and went without further development. A new chapter of the unexplored sixth and seventh millenniums opens.

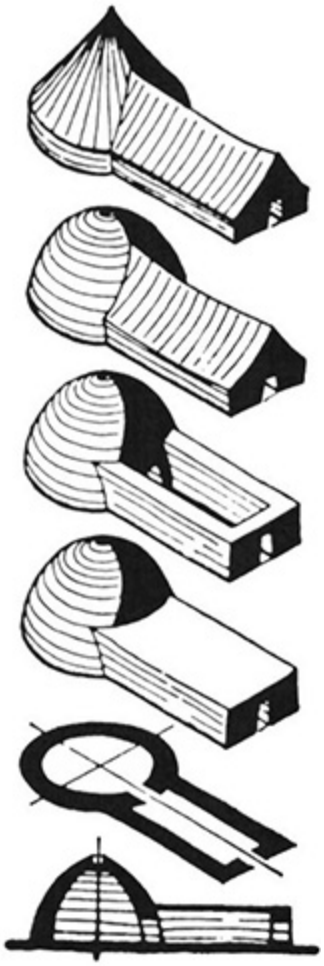


BUILDING AT TEPE GAWRA: *Circular structure, about five meters in diameter, with one entrance. Very early use of buttresses. Sanctuary or secular dwelling? Stratum XIX, fifth millennium. Drawing after Tobler*

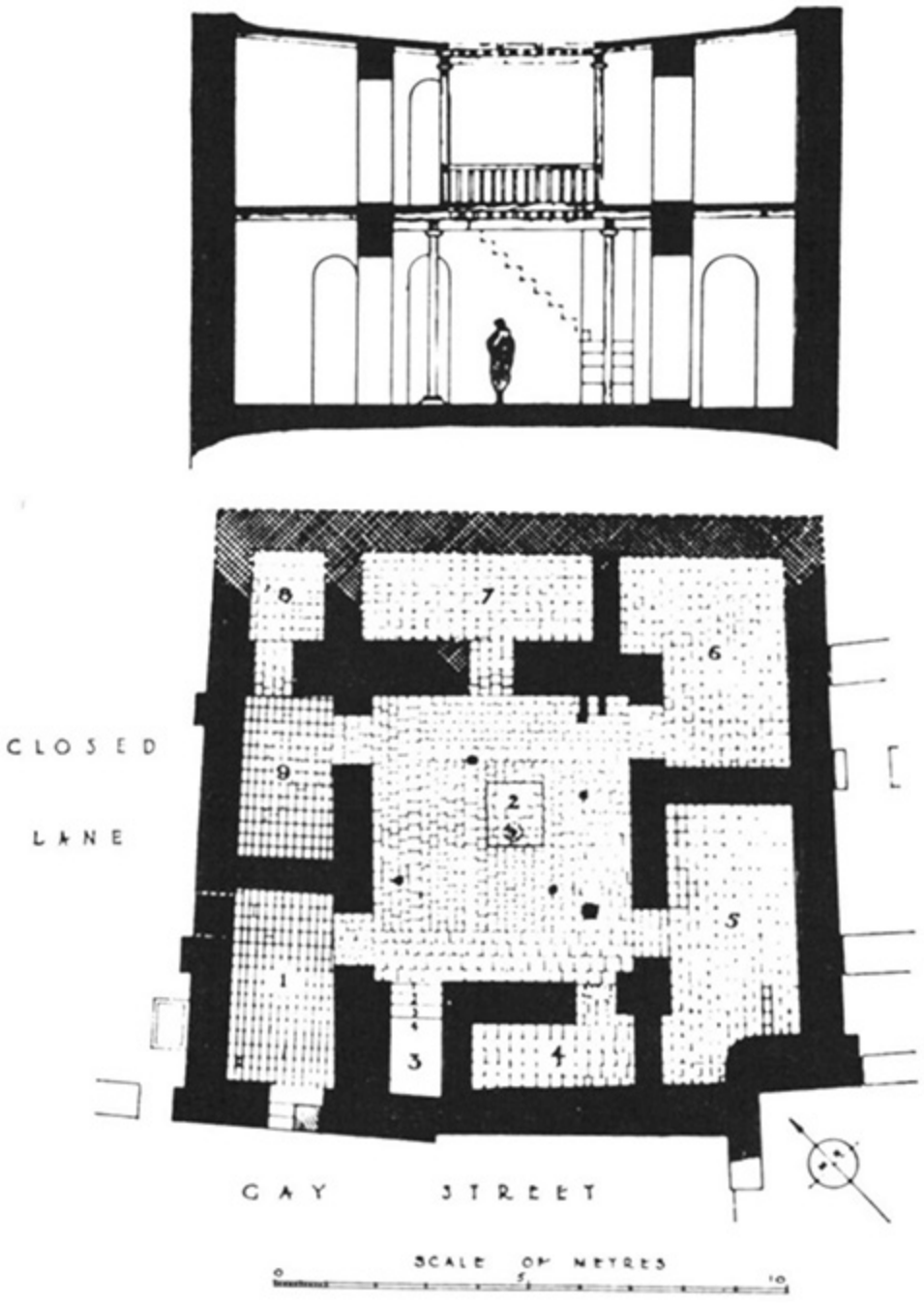


SETTLEMENT AT ORCHOMENUS: *Early Helladic settlement in Boeotia, Greece. Circular and oval structures up to six meters in diameter. Foundations, as at Arpachiyah, formed of heavy stone rings; clay walls and cupola roofs. Above this stratum were several layers of houses with elliptical and apsidal walls; ca. 2000* B.C. *From Bulle*

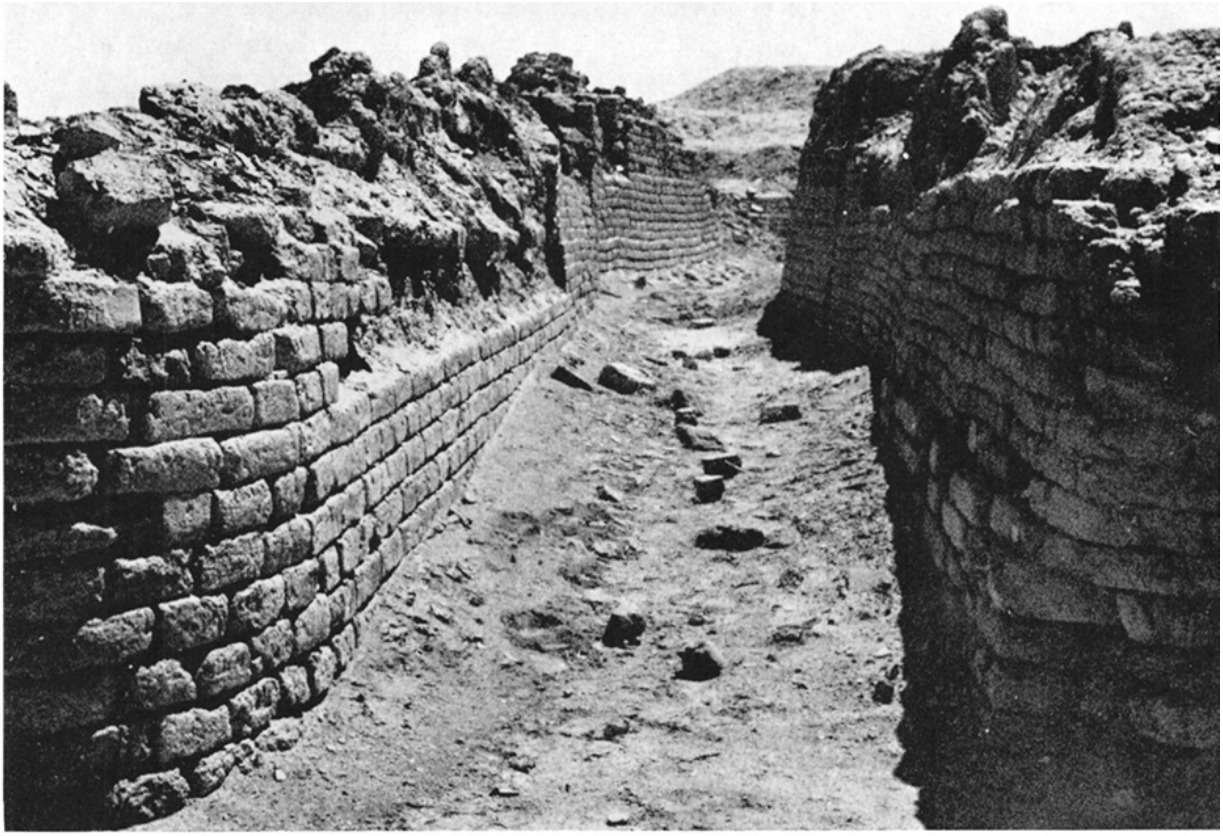
HOUSE AT ARPACHIYAH: *Circular stone foundation of a beehive house with long chamber. In this settlement on a fertile plain the stone circles had diameters of up to ten meters. Exceptionally finely designed ceramic bowls were found in these primitive structures. Fourth millennium*



BEEHIVE HOUSES: *Reconstruction of the different types of beehive house with long chamber found at Arpachiyah. Drawing by Mallowan and Rose*



PATIO HOUSE AT UR: *The single-family house consisting of a central courtyard surrounded by well-organized rooms was never superseded in the Orient; ca. 2000* B.C. *From Woolley*



STREET AT UR, *with rounded corner; ca. 2000* B.C.

Hassuna

In northern Mesopotamia all transitions of settlement can be followed, from the hunting nomads to the shepherds, and on to the food gatherers and farmers. The transition can here be established from circular tents with a ring of stone weights, and circular houses, to houses whose steeply pitched walls come together to form the roof, and, finally, to the strictly rectangular house.

Hassuna, a settlement on the upper reaches of the Tigris not far from Mosul, was excavated in 1943-44 by Lloyd and Safar. Until R. J. Braidwood discovered Jarmo on a spur of the Kurdish uplands, Hassuna was considered the most ancient Mesopotamian settlement known in the north. Its different levels bring out the stages of transition leading up to a stable settlement. The lowest level (Ia) was a camping site of not wholly settled people with hearths: "An oval hearth . . . lay upon a foundation of sherds and pebbles set in a kind of primitive cement" (Lloyd and Safar,

1945, p. 271). Of the next settlement (Ic) only fragmentary curvilinear adobe walls survived. Above this the houses already began to approach rectilinear forms. The founding of Mesopotamian settlements is put at "about 4750 B.C. ± 325 years" (Braidwood, 1957, p. 130).

Earliest Tepe Gawra

In the lower levels of Tepe Gawra, also in the north of Mesopotamia (strata **184** XVII-XX), circular structures were found which were about five meters in diameter and could only be studied fragmentarily (Tobler, 1950, pls. XLII, XLV). Their excavator, A. J. Tobler, was not certain whether these round buildings, or tholoi, were sanctuaries or dwelling houses (p. 43).

Through years of the most careful concentration, E. A. Speiser, and later Tobler and his colleagues from the University Museum in Philadelphia, investigated twenty successive levels of the cult center of Tepe Gawra. Their work threw light on the development of the earliest temples and dwelling houses, and the striking parallelism of this development, level by level. A further five or six levels had to remain undetermined. Only two test probes could be made, twenty-seven meters deep. These showed no "building remains" (ibid., p. 48). On this site, with its continuous record of building activities far back into neolithic times, it would have been especially interesting to know the forms of the earliest structures.

The patio house around 2000 B.C.

The earliest development of houses, both in the south and north of Mesopotamia, ran parallel with the development of the temple. Both consisted of a long rectangular room — a *Langraum* — with small chambers on either side. **190** In the beginning the ground plans were so similar (as at Tepe Gawra) that it is difficult to distinguish one from the other. The temple retained its long rectangular form up to the last centuries of Assyrian and Babylonian culture. In contrast, the human dwelling tended toward a square ground plan with rooms surrounding an open inner court. This form was achieved by about 2000 B.C., at the time of the Third Dynasty of Ur.

During his excavations of Ur in 1926-27, Woolley discovered a whole new **223** urban quarter of highly developed town houses. His first vivid

description of them follows: “The real interest of the work lay in the discovery of a well-preserved town quarter of the time of Abraham; on the main level we unearthed streets and houses which throw a new and unexpected light on the social and **187** domestic conditions of the period. ... [In contrast to] a single-storied building in mud brick, consisting of three or four rooms opening up on an open yard . . . burnt brick was freely used, the quality of the construction, bricklaying etc., was remarkably good, the buildings were often of two stories, and both in ground plan and in elevation the house of a well-to-do citizen. . . . The essential feature of the ground plan is the central courtyard, a rectangle surrounded by **186** chambers which open on to it. . . . Nearly always the court was paved with burnt brick . . . and generally there was in the middle of it a drain-top leading down to a deep vertical drain” (1927, pp. 387-88, 390). On the ground floor were kitchen, liwan, lavatory, and entrance lobby. “The upper floor serves the family for residence” (p. 394). Room heights were 2.50 meters.

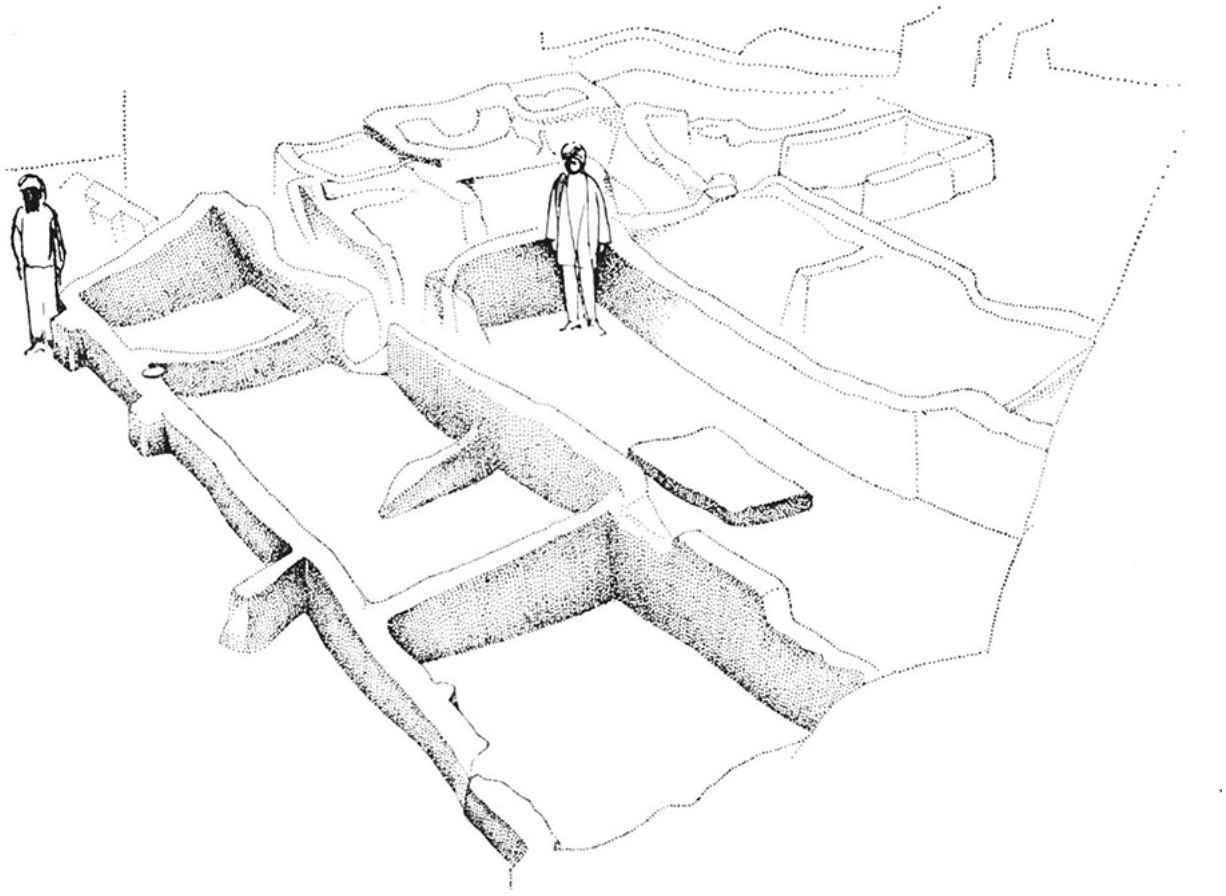
Thus, after approximately three millenniums of continuous development, the human shelter reached a level of comfort for the Near East which has never been surpassed. Europe at this time was still experimenting with round and oval huts, as at Orchomenus.

THE FORMATION OF EARLIEST TEMPLES

At the opening of history in Mesopotamia, around 3000 B.C., the form of the temple was already fully developed. It represents the first monumental type of architecture. What followed, throughout the changing destiny of this country, was but a further development of tendencies which were already apparent in the third millennium, during the Early Dynastic period. This can be traced through a long succession of ruling powers, through the Babylonian and Assyrian dynasties, up to the end of the historic existence of Mesopotamia in the sixth century B.C.

The relation of the people with the deity is revealed by the position of the sanctuary within the temple precinct, the position of the cella within the sanctuary, and finally by the position of the image of the god. All point to an ever-increasing distance between the deity and the people. Later arrangements of the sanctuary aimed at increasing this severance.

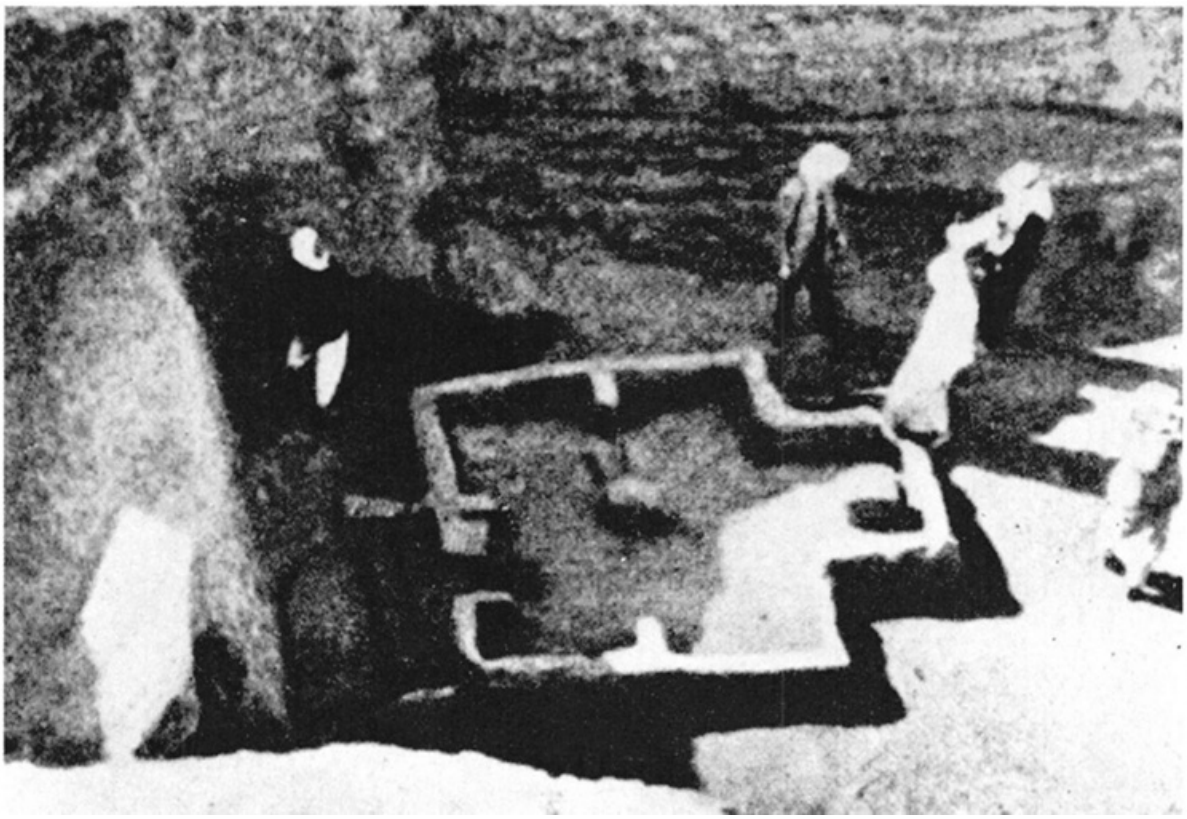
In the beginning, the entire sanctuary stood open to the believers. There were different entrances, as in a Christian church. Walter Andrae comments very perceptively on this free access to the sanctuary: “Life in these temples must be imagined as flowing freely through them. A coming and going is possible on every side, in strong contrast to the enclosure **[***Ausschliesslichkeit***]** of the later Akkadian-Babylonian temple precincts which, with few exceptions, were built like a fortress with one single entry point” (1939, p. 658).



TEMPLE AT TEPE GAWRA (*northern Mesopotamia): A long central chamber and low offering altar distinguish this from a secular dwelling house of identical ground plan. The Langraum was retained throughout the entire Mesopotamian development. Stratum XVIlI, fifth millennium. Drawing after Tobler*

Slowly the distance widened. First a few steps were introduced, then this **2 02** became a raised platform as at Al ‘Uqair and in the so-called white temple at **209** Uruk. The temple of Al ‘Uqair was raised upon a smaller second platform, standing upon a platform walled about like a fortress.

This development took place during the Protoliterate or formation period of Sumer. But, once within the temple, the faithful were still immediately related to the altar and offering table.



SHRINE AT ERIDU (*southern Mesopotamia): Earliest known shrine at Eridu, resting on virgin soil. Miniature in size, less than four meters square, but already incorporating a central offering table and an altar in a recessed niche. Stratum XVI, pre-Al 'Ubaid period, fifth millennium. From Van Buren*

Interior space up to the third millennium

The most unexpected feature of protohistoric temple architecture was, as already noted, its accent on the perfection of interior space. This approach was in strong contrast to the diminution of the importance of interior space which set in with the beginning of the historic periods.

In place of the hollowing-out of inner space there then arose massive volumes. The formation of a plastic architecture, an architecture of volumes placed in space, became and remained the highest ambition of architects throughout the next three millenniums.

The devaluation of interior space proceeded step by step, parallel with the mounting rigidity of the hierarchical social structure. A magnificent disposition of volumes in space — the ziggurats and pyramids — rose to

full splendor relatively late. The ziggurats, those many-tiered temple towers, first achieved monumental proportions around 2000 B.C.

The temple as an enclosed space to which the people had free access, where man could stand face to face with his god, was halted in its development at the start of history. All the Mesopotamian excavations of recent decades have provided further verification of this.

191 In the south, in Eridu (Abu Shahrein), Lloyd and Safar in 1946-49 excavated the most ancient "house of god" yet known, dating back to pre-Al 'Ubaid times **231** (fifth millennium). Above it they found a long succession of increasingly differentiated temples, whose ruins were finally incorporated in the huge raised platform upon which the ziggurat of Urnammu was erected shortly before 2000 B.C.

In the north, in Tepe Gawra, Speiser and Tobler uncovered twenty levels giving an insight into the beginnings of an elaborate temple community starting before the Al 'Ubaid period and only ending around 1500 B.C.

The scanty remnants of foundations which must be linked together to form ground plans seem as isolated in time and space as stars in the firmament. Yet despite all lacunae, it is possible to trace the outlines of the conception of inner space that evolved over fifteen to twenty centuries prior to the third millennium.

The earliest sanctuary at Eridu was built on virgin sand and only measured **191** 12 x 15 feet (Frankfort, 1954, p. 2). Its earth walls were not yet placed precisely at right angles to one another, but certain essential elements of later temples were already present in embryo — from the remains of the wall buttresses which projected into the interior space, to the organization of the shrine itself: ". . . a doorway facing an altar in a niche-recess, a central offering table showing traces of burnt sacrifices. In this building Al 'Ubaid ware had entirely disappeared, replaced by a new and unfamiliar type only slightly resembling those of Tell Halaf and Samarra" (Van Buren, 1949, pp. 123-24).

The earliest temples at Tepe Gawra in the north (in the lowest levels yet excavated) also belong to the pre-Al 'Ubaid period. Here too one can perceive the outline of the standard form. The temple in one of the deepest levels — **190** stratum XVIII — had "a long central chamber, on either side of which were smaller auxiliary rooms. The religious character of the edifice is established by a rectangular podium located slightly to the rear of the central chamber, or sanctum" (Tobler, 1950, p. 44). The construction of

the building is still very crude: walls of rammed earth which do not meet at exact right angles, and reinforcing buttresses, as at Eridu, which project both to the inside and the outside. These buttresses indicate, in an embryonic form, something that will later be carried to a high degree of refinement, and special attention will be paid to the three temples on stratum XIII in which this development reached its full perfection.

The acropolis of Tepe Gawra

To understand the evolution of protohistoric architecture it is not enough simply to compare the ground plans of important buildings. In one case in particular we are able to observe the relation of a temple to its immediate environment: the three temples at Tepe Gawra, stratum XIII. It was recognized immediately that this discovery was of fundamental significance for the earliest cultural history of the Orient (Moortgat, 1945, p. 42). Here in Tepe Gawra XIII one can recognize more vividly than almost anywhere else the leap forward of this early architecture to a monumental form, and gain an understanding of the handling of interior space.

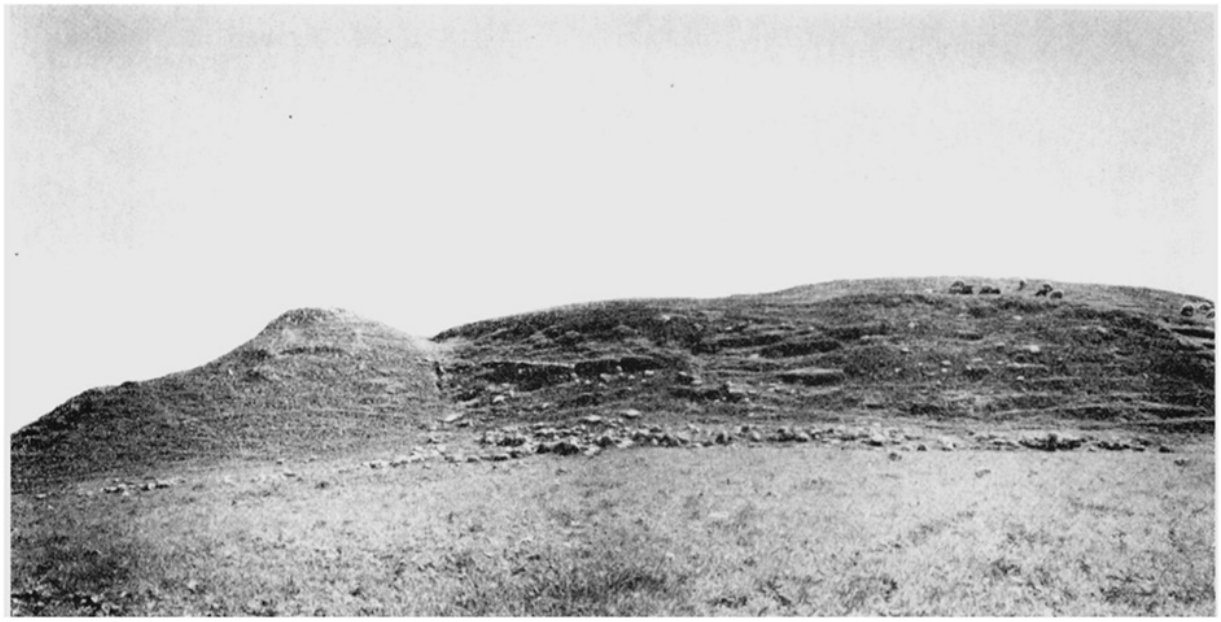
The situation is approximately as follows: Tepe Gawra, fifteen miles northeast of Mosul, consists today of two mounds divided by a depression. These **194** mounds doubtless still contain many interesting secrets, particularly in the lowest levels where, unfortunately, excavation was very limited. Speiser made some test diggings here in 1927. Actual excavations were undertaken between 1931 and 1938 by him and others under the sponsorship of the University of Pennsylvania, and the results were published in two handsome and meticulous volumes (Speiser, 1935; Tobler, 1950).

The excavations extended through twenty levels: the first nine covering the entire site, the rest taking in less and less of the area. Tepe Gawra, as we have seen, was a place of continuous settlement throughout long ages. It was abandoned around 1500 B.C. — and forever. Here no conqueror raised a ziggurat over the ruins.

It was the open plan of the three temples of stratum XIII and the unexpected architectural sensitivity of one of them that prompted me to visit the site and see it with my own eyes. Naturally I could not expect to see the remains of any buildings, for each stratum had to be completely

cleared to allow the one below it to be examined. The site now again lies covered with turf and grazed by sheep, as it had for more than three thousand years before it was excavated.

Its situation in the landscape, however, remains unaltered. To the south the relics of past ages are again buried in the sand, for storms have swiftly obliterated **right** what the spade so painstakingly revealed. Yet Tepe Gawra still retains something of the original aspect of the site. The fields of grain begin to mist over with green and, about a mile and a quarter away, groves of thousand-year-old olive trees spread out above the Kurdish village of Fadhilyeh. Beyond it, in the distance, stretch the sharp horizontal contours of a range of hills — the Jebel Maklub — herald of the Kurdish highlands. Tepe Gawra, whose ancient name remains a riddle, lay aside from the great military route between Assur and Babylon — no strategic stronghold to excite an invading conqueror. It was a modest religious center, almost villagelike in character, set within a gentle landscape and without an extensive hinterland, neither a proud regional center like Uruk nor a simple village like Hassuna. I inquired of the inspector who accompanied us whether remains of earlier settlements existed around the mound. The reply was not encouraging.

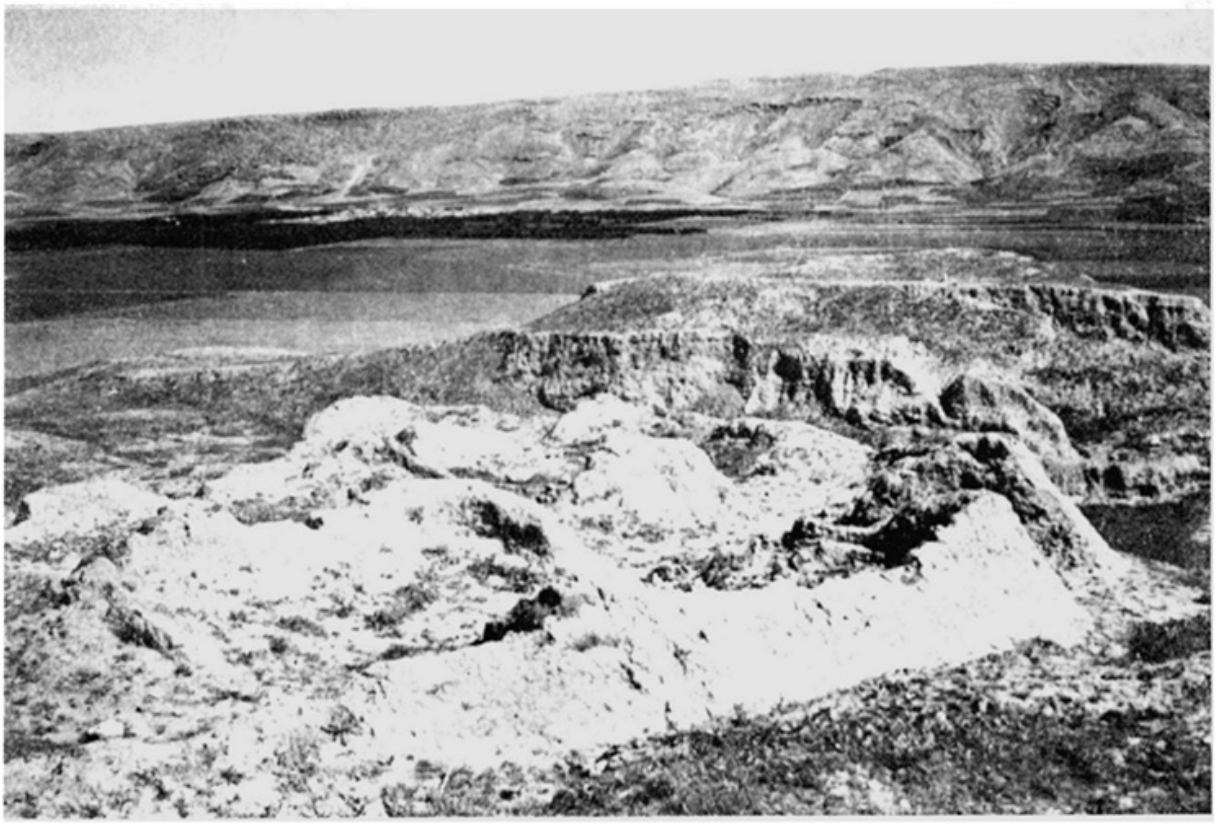


VIEW OF TEPE GAWRA, *a very early small religious center near the Kurdish highlands: Two mounds separated by a depression where the acropolis once stood. Over twenty levels of habitation indicate a continuous settlement flourishing through nearly three millenniums, ending 1500* B.C.

The structure of the Tepe Gawra mound itself shows a close and intimate grouping of temples and private houses, the latter often astonishingly spacious. If it was in fact a temple settlement, as has been assumed, it can throw some light upon the first beginnings of this system. The site was not so completely organized as, for example, the later site of Khafaje, where the temple storerooms ***220*** and workshops were built between the double walls of the great temple courtyard (Frankfort, 1933b, p. 68). At Tepe Gawra the relationship between temple and dwelling houses is more like that in small medieval towns than in the forbidding Assyrian temple-fortresses.

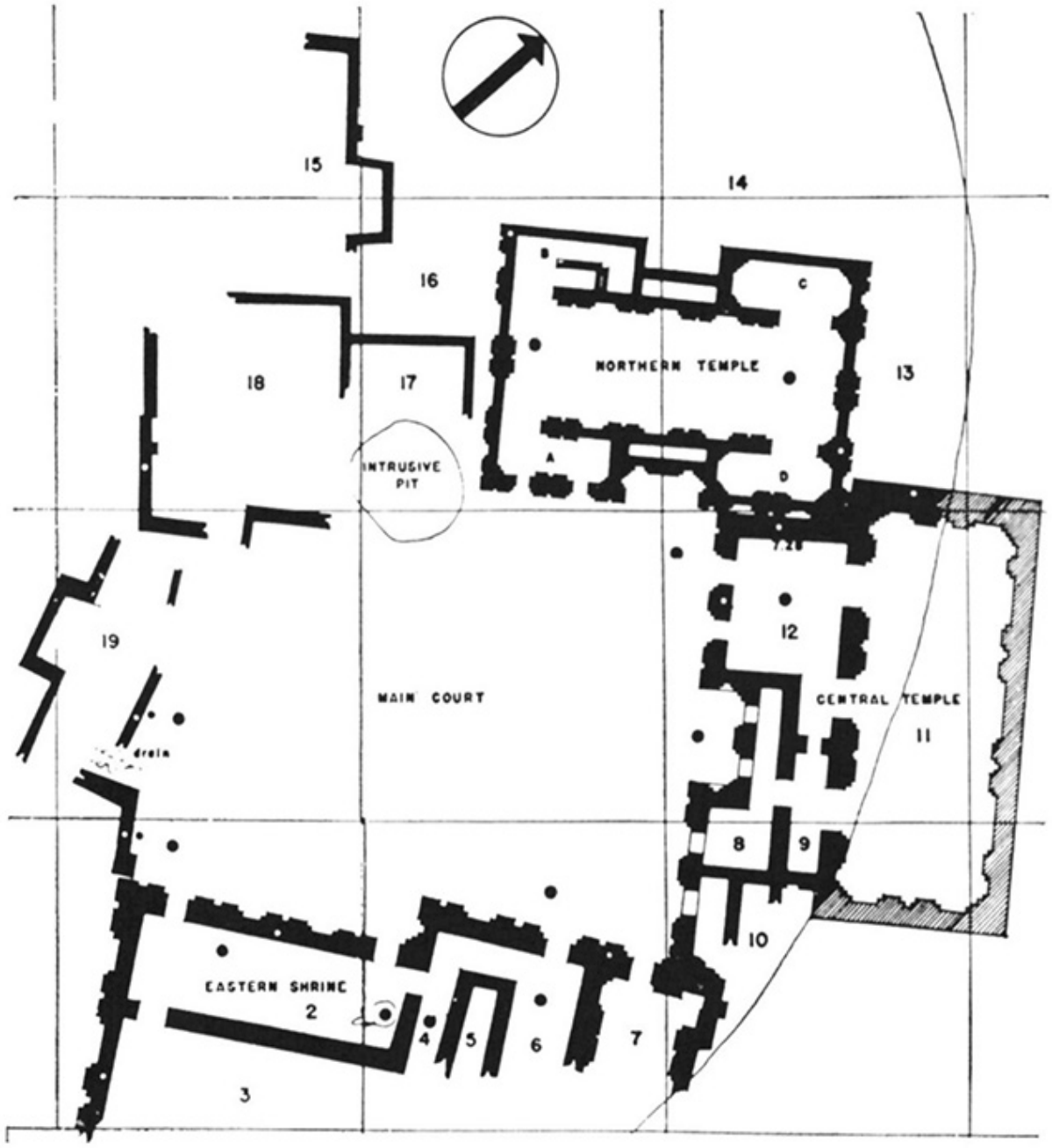
Allowing for the relativity of prehistoric dating, the early fourth millennium may be taken as the period of the rise of Tepe Gawra XIII. This is determined by its position amid the other levels excavated and by the colored pottery found there. There were three temples: the earliest, whitewashed eastern shrine built of disproportionately large sun-dried blocks, each over half a meter in length; **196** the central, or purple temple; and the northern temple, the only one to be considered here.

These three temples, which do not stand exactly at right angles to one another, are grouped in a U-formation and frame an open space rather than an enclosed courtyard. This did not come about accidentally or without fore-thought, for the excavators found that the space between the temples had been carefully leveled and smoothed, first with fine gravel and then with fine clay. Thus a U-shaped form was developed around a well-formed, level, and integrating open space. The spatial organization was emphasized by a large, deeply recessed niche on the axis both of the central temple and of the whole court. “The remaining side of the court was closed off by a number of thinner, undecorated, and disconnected walls which formed no recognizable buildings” (Tobler, 1950, p. 30), but which in no way disturbed the spatial relationship of the three connected temples.

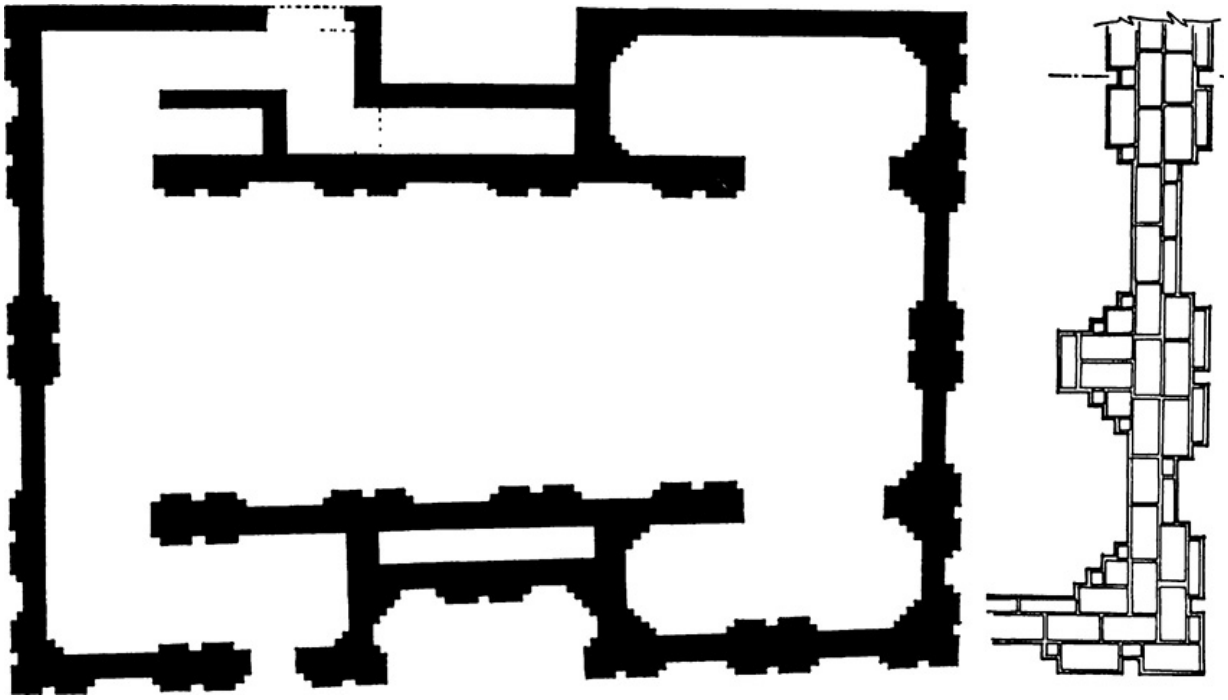


THE MOUND OF TEPE GAWRA, *with distant view of the Kurdish highlands*

THE NORTHERN TEMPLE: *Excavation of stratum XIII at Tepe Gawra. Only a few courses of sun-dried brick remained. The temple was probably lighted by triangular windows. The highly differentiated modeling of its interior space has no counterpart from this period*



ACROPOLIS OF TEPE GAWRA: *Ground plan of stratum XIII. Three small shrines form a roughly U-shaped open court. Though modest in size compared with the later monumental temples of Uruk, they afford an insight into the advanced standard of architecture in the Al 'Ubaid period. Early fourth millennium. From Tobler*



NORTHERN TEMPLE: *Ground plan and section through wall. The articulated buttresses with small pilasterlike strips occur both inside and outside. In contrast to later temples, the walls are extraordinarily thin. From Tobler*

Of the three, it is the northern temple in which the inception of monumental architecture is most unmistakably displayed. The delicacy and sensitivity of its **above** surface modeling were unsurpassed by any later Mesopotamian building. As in a bud, this modest temple (8.5 x 12.25 m.) enfolded all that was later to be expanded to gigantic dimensions in the great centers of power and administration, Ur and Uruk. When I visited Warka (the modern Uruk), one of the archaeologists working there referred to the northern temple in Tepe Gawra XIII as "pocket-sized." This it is, in comparison with the 120,000-square-meter temple precinct (the Eanna) at Uruk. But the northern temple of Tepe Gawra XIII was as significant for the development of early monumental architecture as Brunelleschi's Pazzi chapel for the development of the early Renaissance. There, just as in the modest dimensions of the Florentine chapel, one can detect the characteristic features of later ambitious structures.

197 What first strikes the eye is the dominating, elongated central hall, whose spatial connections and separations were most subtly achieved. By and large, the ground plan differs very little from that of other temples, such as the white **202** temple at Uruk or the late Temple VII at Eridu. Just as in

them, the walls bounding the central area are organized as a succession of recessed niches. The astounding features of the northern temple are the delicate articulation of the **197** encircling walls, which are as thin as concrete panels, and their express utilization to organize the interior space. This consisted of a single space which, through the deliberate arrangement of its walls, was divided into a dominating central hall with, at either end, a symmetrically disposed rectangular space at right angles to the main axis. The strength of the central hall was increased by the addition of two freestanding partitions; these created large side niches, one of which formed a small vestibule that served as an antechamber or preparation for entry into the main sanctuary. These niches also indicated their later development as "side chapels." The organization of the walls created an interlocking space impossible to take in at one glance — which would naturally give rise to doubts as to whether it could conceivably have been built in Protoliterate times, were it not for its position in the sequence of strata and for other undoubted finds that place it firmly in the Al 'Ubaid period.

The most sacred part of the northern temple was its spacious open cella at the northern end. Its encircling walls were even more strongly modeled than others in the building. The jutting freestanding panels merged the central hall with the cella and at the same time created two large side niches — pockets of space. The articulation of the walls in the rest of the building seems merely a preparation for that of the cella. The pair of projecting buttresses on the central axis still have only two pilasters, but the buttresses to right and left of them are bordered by four pilaster shafts. This is a tremendous development from the clumsy buttresses of other temples in the strata immediately beneath.

The architect of the northern temple must have possessed a feeling for the total unity of a building, a feeling for the interrelation between the interior and exterior faces of the walls. The cella buttresses with many pilasters penetrated the wall and repeated their form on its outer surface. Their fourfold pilasters were also echoed in all corners of the chapel-like niches. All in all, the modeling and organization of the walls of this temple exhibit the refinement and delicacy that exist only in monuments of great architecture.

No trace of an altar platform or offering table was found in the northern temple, in contrast to the lower strata. We do not know why this was, but in any case, very few objects were found in this stratum. Among those few

was an incense burner that, as we shall see in the next section, may give some idea of **200** the exterior appearance of the temple. “The overhanging ledge surmounting the object may reproduce the eaves of the building, and while there is no other evidence to suggest the presence of windows in any of the stratum XIII buildings, the triangular openings of the incense burner make such an assumption entirely reasonable" (ibid., p. 144).

This Al ‘Ubaid temple makes it impossible to explain the form of the earliest brick architecture in purely materialistic terms, as an imitation of walls of wooden planks. Both inside and outside surfaces of all the temple walls, apart from the outer face of the rear wall, were rhythmically molded with stepped pilasters. This was new, and a great stride forward from erecting simple supporting buttresses. The power of a creative imagination was here able to transform a humble material, an unlikely material — sun-dried brick — into a structure replete with spiritual force.

ARCHITECTURE, POTTERY, AND ABSTRACTION

The design of the walls of Tepe Gawra XIII, with the interrelated modeling of their inner and outer surfaces and their astonishing thinness, stands in strong contrast to temple walls at the peak of the Sumerian period, when, as in the temple of Inanna at Nippur (ca. 2000 B.C.), they were ten to thirteen feet thick (Haines, 1956, p. 266). The explanation must be sought outside the realm of architecture.

At this early period, the same material — clay — was used to make thin-walled pottery vessels, hard and resonant as a bell. A race of people lived here who were able to turn the thinnest and most delicately modeled vessels on the potter's wheel, whose hands were accustomed swiftly and simultaneously to mold both inside and outside faces of these exquisite examples of the potter's craft. Shortly thereafter, pottery declined from its eminent position and architecture failed to fulfill its early promise of a refinement of proportions in the service of a farreaching hollowing-out of interior space. Other trends, based on other premises, came to the fore in Sumer, as in Egypt.

Does this imply that the earliest monumental architecture was derived from pottery? That is certainly not the intention. But the forms of both pottery and architecture grew from the same ruling principle of the time: abstraction. The origins of monumental architecture are rooted in abstraction. This can explain the organization and division of its interior space. Both the articulation of the temple walls and the surface decoration of the pottery vessels testify to this, as can be observed from any random fragment. In stratum XIII at Tepe Gawra, a beaker was found whose decoration the excavator described as "admirably **left** balanced, and well adapted to the contours of the beaker to which it was applied." He then added: "The design suggests a comparison with the triangular windows and long, vertical grooves to be found on the incense burner from this **left** stratum. . . . It is not improbable that we have in the central decoration of this beaker a stylized representation of an entrance to one of the temples" (Tobler, 1950, p. 143).

BEAKER FROM TEPE GAWRA: *The surface is organized with vertical lines, like the temple buttresses. The single triangle suggests a symbolic meaning. From stratum XIII. From Tobler*

INCENSE BURNER FROM TEPE GAWRA: *Probably the triangular perforations not only show the shape of the temple windows but—as everywhere in the protohistoric period—operate as a fertility symbol*

Pottery was not a model for architecture, nor was architecture a model for pottery. The basis and background for both embraced a common conception: abstraction and symbolism.

We are here at the close of that use of abstraction as a universal means of expression which had attained absolute dominance in the neolithic period. In the northern temple of Tepe Gawra XIII another aspect of this long tradition came to fruition. How can one explain the crystal-clear

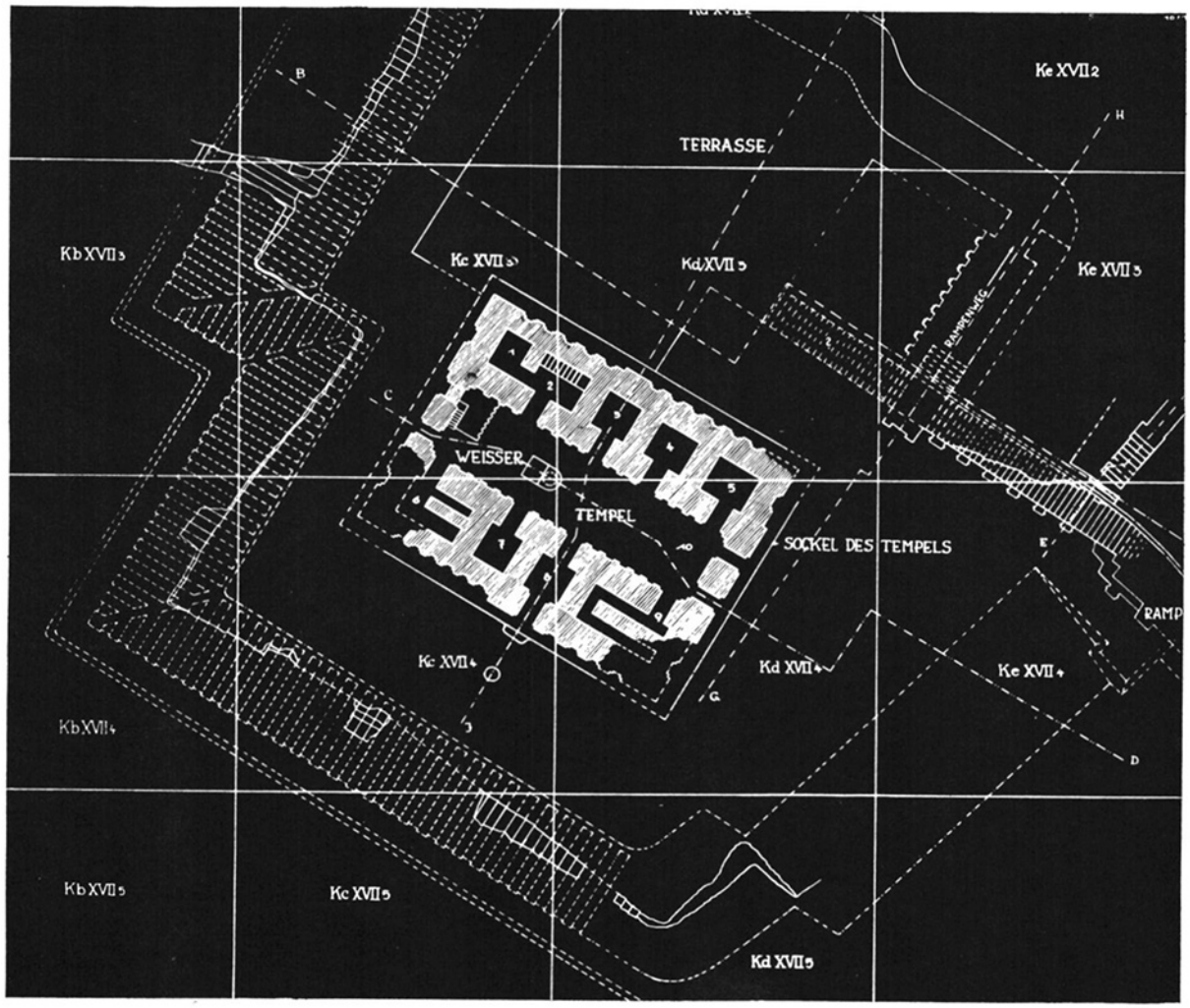
structuring of the interior of this temple, its abstractly modeled surfaces, and the organization of its divisions, except as the outcome of an imagination trained through long ages to create forms for which no direct image exists in nature?

GROWING DISTANCE BETWEEN DEITY AND PEOPLE

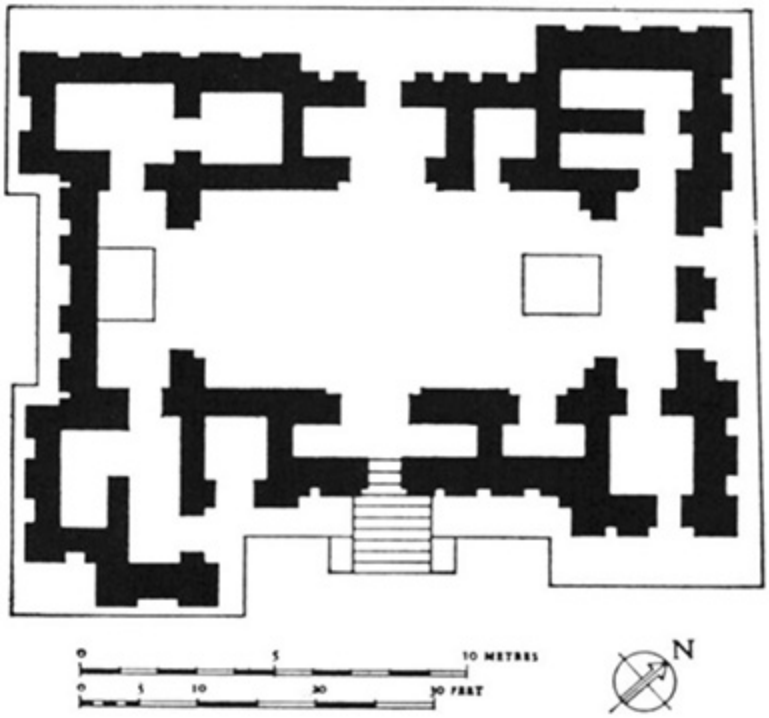
We can gain insight into the time sequence of the formation of inner space and the modeling of the entire building by a comparison of four temples: the temples of Tepe Gawra XIII in the north, and Eridu VII, the white temple, and Temple D at Uruk in the south.

The earliest of these is Tepe Gawra XIII, from around 3500 B.C. or probably even earlier. The latest is the white temple of Uruk, from the Jemdet Nasr period, between 2800 and 2600 B.C. Temple VII of Eridu and Temple D at Uruk fall between these dates.

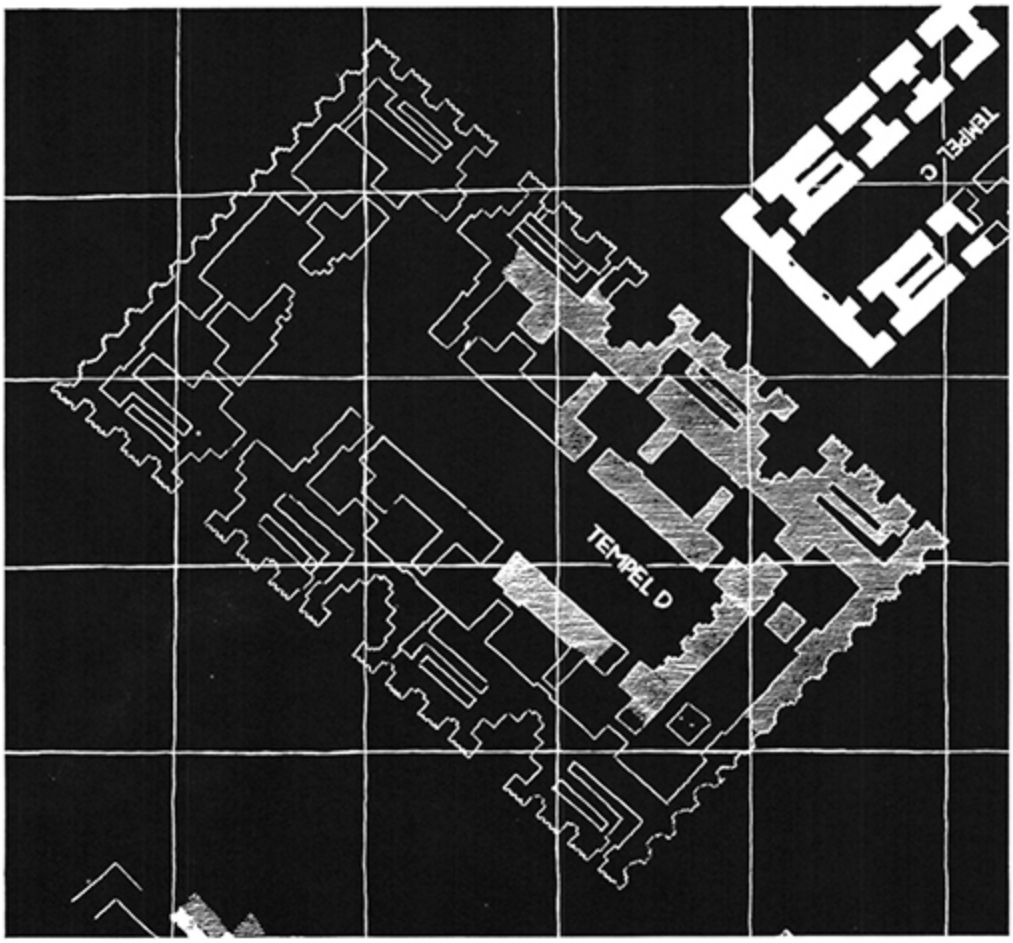
The interior of Tepe Gawra XIII, though differentiated in form, is a single room. As in a building of today, the interior space is divided by two screens **197** which help to form open niches at either end.



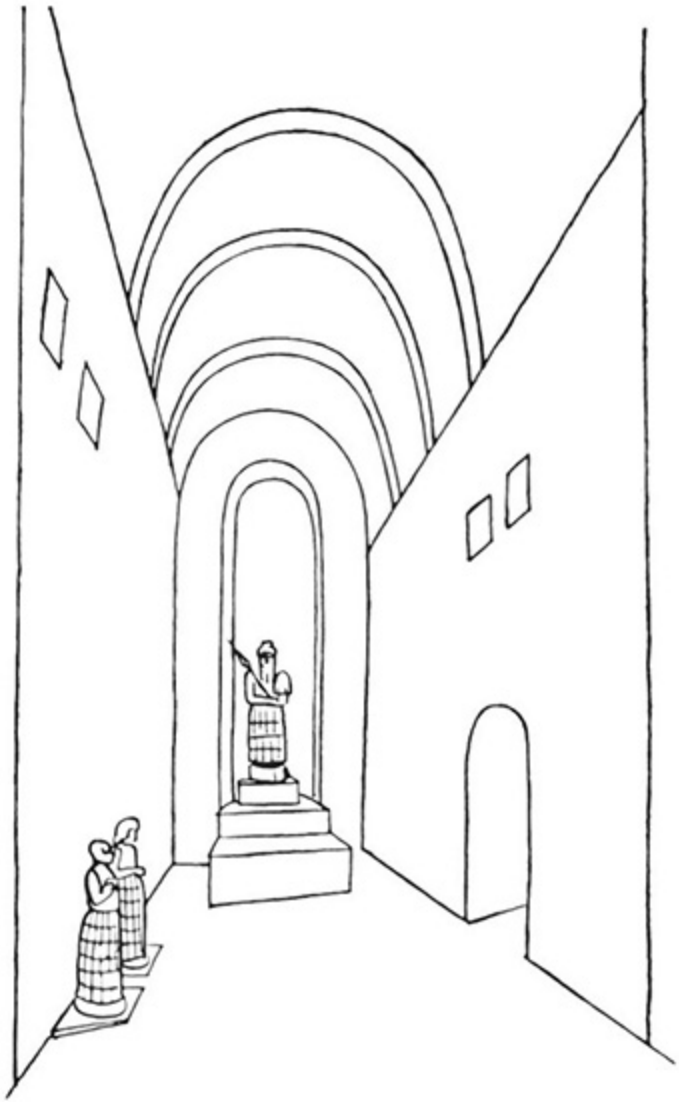
PLAN OF WHITE TEMPLE, URUK: *Sited on a high terrace approached by steps, with entrance on three sides. Later than 3000* B.C. *From Lenzen*



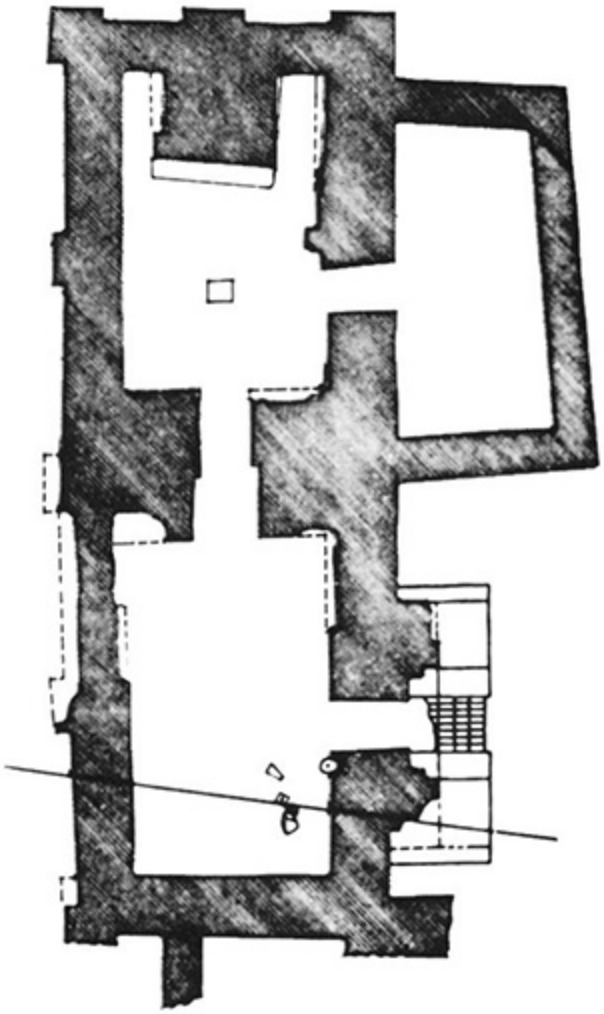
PLAN OF TEMPLE VII, ERIDU: *Strongly accentuated corners and alternate buttresses and recesses along the walls. The long chamber can be entered from three sides. From Frankfort*



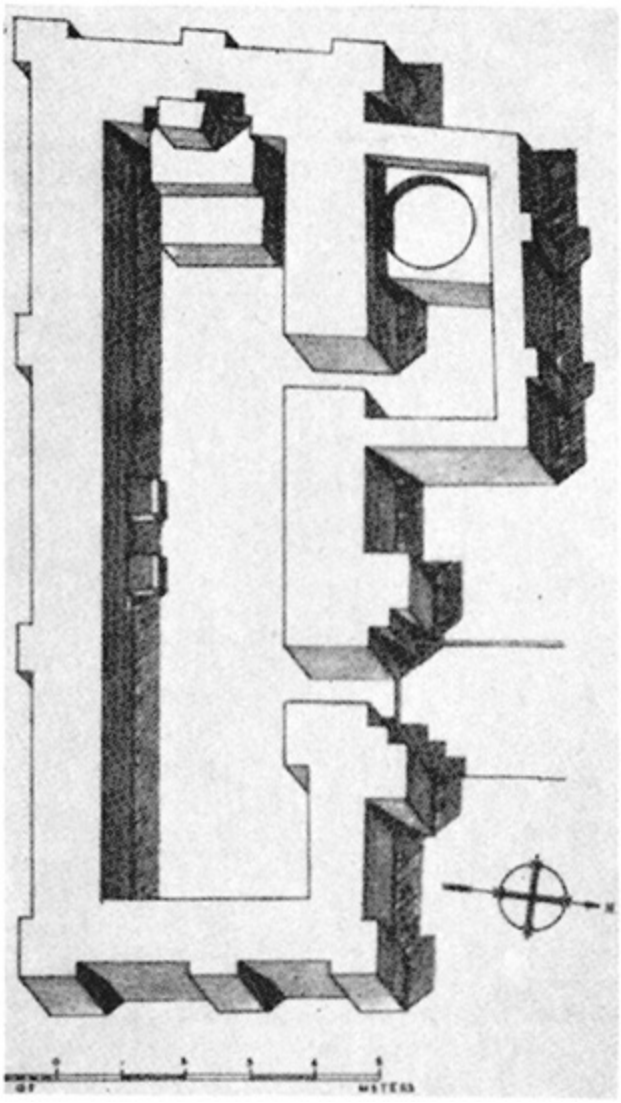
PLAN OF TEMPLE D, URUK: *The largest of all the Sumerian temples* (*50 x 80 m.*), *it shows full mastery of modeling exterior and interior space. The refinement of the deep recesses in its outer walls indicates the high standard of the period. Druk IV, ca. 3000* B.C. *Drawing by Lenzen*



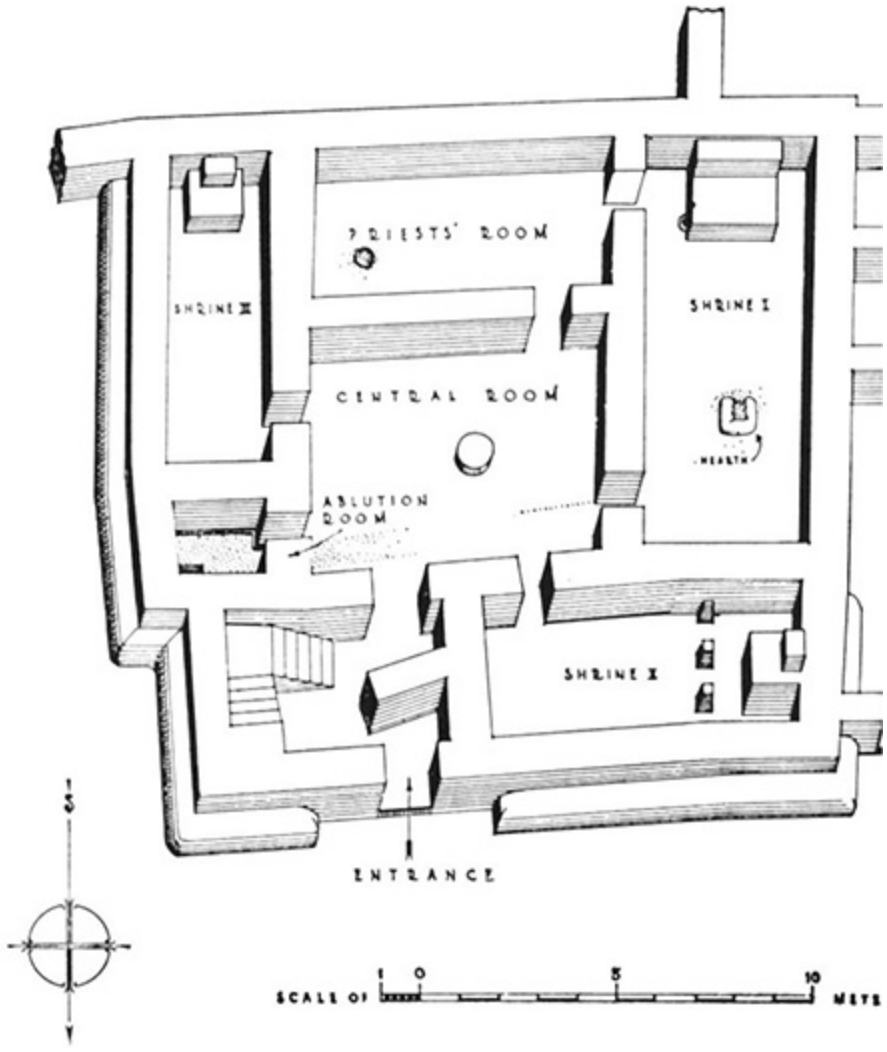
SINGLE-CHAMBER SHRINE AT TELL ASMAR: *It is not certain that a statue to the god Abu stood on the altar as shown. Drawing after Lloyd, from Delougaz and Lloyd*



EARLY DYNASTIC SHRINE AT TELL ASMAR: *In this period the temple had a single entrance near the end of the long chamber. From Frankfort*



AKKADIAN SHRINE AT TELL ASMAR: *Near the beginning of this period, the shrine was divided in two by the thickest wall. From Delougaz and Lloyd*



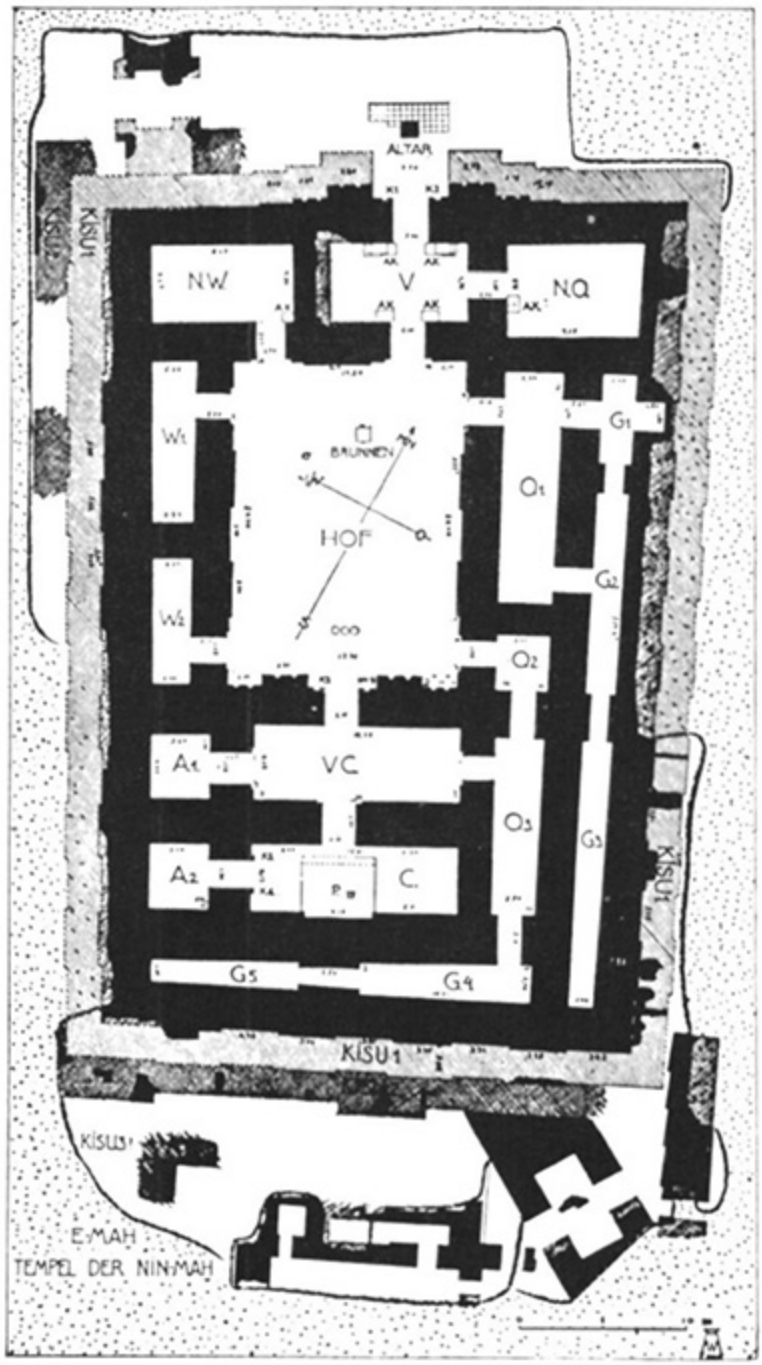
THE THREE SHRINES OF TELL ASMAR, *Second Early Dynastic period. The whole complex has only one entrance from outside. From Frankfort*

The outline of the plan of the larger Eridu Temple VII is very close to Tepe **202** Gawra XIII, though the strongly accentuated corners have become bolder, the walls thicker, and buttresses alternating with shallow recesses surround the whole structure. Despite the general similarity of external plan, the tendency to move away from a free-floating space embracing the whole interior is already clearly marked. Instead, emphasis is laid on a long, stretched-out cella with smaller auxiliary rooms alongside.

The white temple of Uruk is by far the best known of all Protoliterate sanctuaries. Uruk was the foremost religious center of Sumer. It was still a proud, rich city in the time of the Seleucid kings in the fourth century B.C. Its gods, who were considered the owners of the city, were Anu and Inanna.

A long line of mythological kings ruled at Uruk, including Gilgamesh. The fine reliefs on its famous alabaster vase give the earliest representation of an exuberant agri- **121** culture in the Jemdet Nasr period.

The white temple stands high upon a platform raised over the ruins of its **202** predecessors — a token of the great accomplishments of this same space conception at the end of the Protoliterate period, early in the third millennium. This temple acquired its name because its mud-brick walls were covered with whitewash. It was dedicated to the high god Anu, lord of the heavens: “Its ground plan is approximately rectangular (17.50 x 22.30 m.). The most important part of the temple is the central chamber, 18.70 meters long and 4.85 meters wide, bordered on the northeast side by five rooms and on the southwest by two rooms and two stairways" (Lenzen, 1942, p. 8). Lenzen draws attention to the fact that the temple at Tell Brak in Syria, on the Khabur River, a tributary of the Euphrates, excavated by Mallowan in 1937-39, which is roughly of the same period as the white temple, has almost exactly the same proportion of length to breadth (p. 29). Thus, both in the north and in the south, the same ground plan and the same space conception were developed.



PLAN OF E-MAH TEMPLE, BABYLON: *This temple of the goddess Ninmah shows how the tradition of the Langraum persisted to the end. Separation of the faithfid from the deity has now become emphasized by a sequence of barriers. Sixth century* B.C. *From Koldewey*

Many large temples were built in Uruk, since, as the city of Inanna and seat of Gilgamesh, it was a singularly important religious center. The largest temple **203** was found in the archaic stratum, Uruk IV. Known as Temple D,

it measured 50 x 80 meters and was built around 3000 B.C. The interior was T-shaped and the deeply recessed outer walls showed the highly refined technique attained at this period. It is not until churches of the Gothic and baroque periods that we again find exterior walls treated in so plastic a manner.

The separation of the cella

The inner court. In the pre-Sargonid period, before the middle of the third millennium, a growing severance between the deity and the faithful became apparent. Instead of many entrances there was only one, placed toward the far end of the cella. Then an antecella was inserted before the cella. An inner court further helped to accentuate the distance.

The distance between deity and people came to be expressed architecturally toward the beginning of the period of Sargon of Akkad, around the twenty-fourth century B.C.

A major gap exists in our knowledge of this period, for we do not know where the newly founded capital city of Akkad was actually situated. It was the residence of Sargon, the first great conqueror, king of "the four corners of the earth," whose rule extended to the Mediterranean coast and even beyond.

A faint reflection can be gathered from Eshnunna, a small Sargonid city at Tell Asmar, excavated between 1931 and 1933 by Frankfort, Delougaz, and Lloyd. Eshnunna lay on the Diyala River, not far north of where it flows into the Tigris below Baghdad. Here a series of temples was built, one over the other, starting in the Protoliterate period and ending at the beginning of the Akkadian period. Four versions of the earliest shrine from the Protoliterate period were found, all with irregular ground plans.

Above them was a series of three square temples built during the Second Early Dynastic period. Here three small shrines were assembled around a common inner court, each with a single entrance opening onto it. The only connection **204** was through one doorway to the court. This may be partly because the temple lay in the midst of the town and was surrounded by private houses, like a baroque monastery. It was in the second of these square temples that the excavators made their greatest find,

“a hoard of statues, buried beneath the floor” (Delougaz and Lloyd, 1942, p. 189).

This sequence of temples had “four principal building levels” (p. 192), the last two entering into the Akkadian period. Having neither niches nor transepts, in contrast to earlier temples such as Tepe Gawra or Eridu VII, the nave appeared **196, 202** extremely long. It was entered on the long side, toward the far end from the sanctuary. The ratio of length to breadth was as great as four to one. Only one very small adjoining room existed, which the excavators “presumed to be a kitchen in which sacred food was prepared” (Frankfort, 1934, p. 44). Because of the thickness of the walls, and for other reasons, the excavators consider they were roofed by a semicircular vault of mud bricks spanning three meters. “It is known that the Sumerians had already mastered the principle of the brick arch, and . . . there is no reason to suppose that the construction of a vault over a span of 3 meters, by means of a movable wooden centering, would be beyond their architectural ingenuity” (Delougaz and Lloyd, 1942, p. 196).

The tentative reconstruction of the nave gives some idea of the appearance **204** of the interior, even though its height may be somewhat exaggerated. In contrast to the early temples of north and south, the modeling of the interior had become extremely simple: no buttresses, no niches, only one strongly concentrated space.

It would seem that we are here only a step away from the Romanesque churches of southern France with their barrel vaults. Instead, the envelopment of both the faithful and the rituals within a single space was drawing to its close.

This occurred even in the third and fourth building levels of this single-shrine temple. “The shrine was then divided into two separate compartments by a wall with a doorway in it” (ibid., p. 192). This new dividing wall is thicker than any other in the building, and the doorway is small. The ritual altar and offering table have now become severed from the people, and the space for ritual and thé space for the people is of the same size. The single entrance to the temple has been monumentalized.

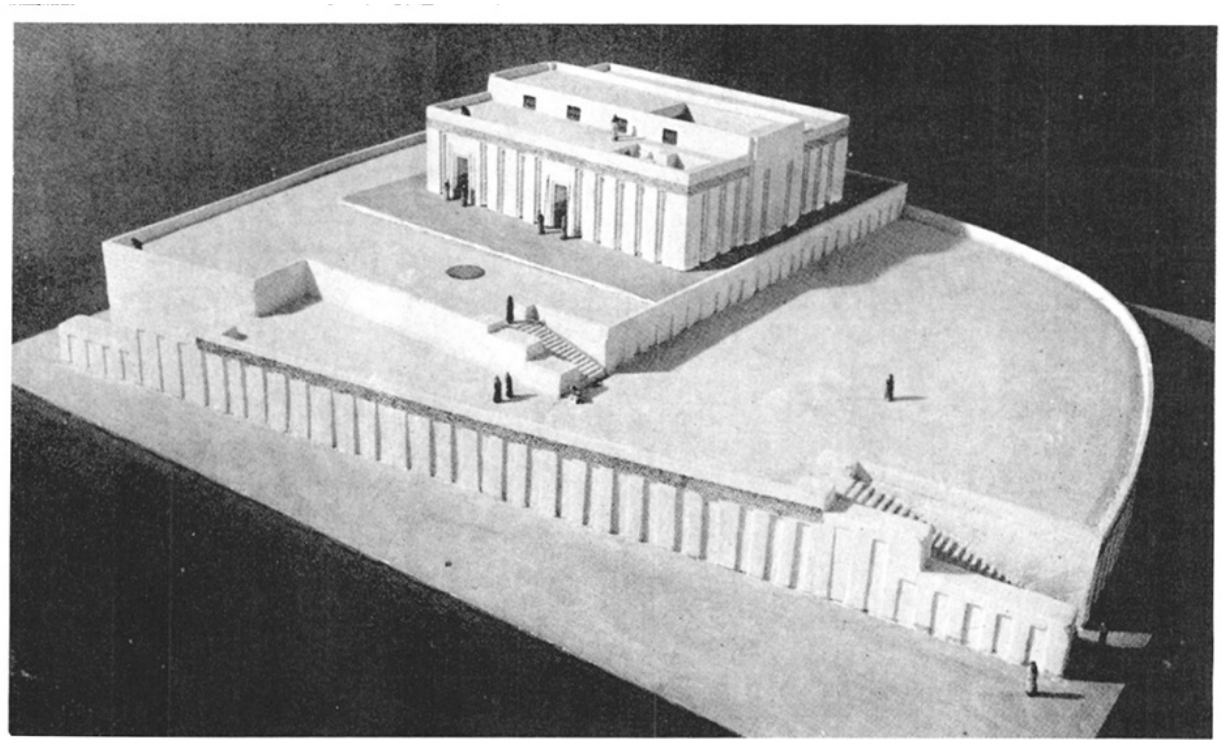
It is logical that this severance occurred just at the outset of the Akkadian period. Again and again Akkadian cylinder seals portray the anthropomorphic gods in dialogue with Sargon, and he himself was sometimes depicted with a horned crown, the insignia of a god.

The dividing wall in the latest single-shrine temples of Tell Asmar points to the beginning of a process which was to become ever stronger: the severance of the deity from the people.

There are many instances in which the further growth of the Mesopotamian temple can be followed. The isolation of the god grew constantly greater. The image stood in a dim light, or in total darkness. The plan of the sanctuary was adapted for this purpose and the tradition remained unchanged up to the end. The temple normally continued to be a rather humble rectangular structure even when it was placed upon a most conspicuous site, like the temple to the **205** goddess Ninmah (the Great Mother), built by Sardanapalus and, later, Nebuchadnezzar, toward the start of the sixth century B.C. This Babylonian temple stood between the Ishtar Gate and the palace, beside the broad processional way of the great New Year festival. One had to pass through several doorways and vestibules to reach its inner court. The cella containing an image of the goddess lay on the axis of the court, upon a higher level, and an antechamber was placed before it. “It appears probable that the secular folk were not allowed to penetrate beyond the antechamber. Access to the cella was evidently intentionally rendered difficult by the postament, which projected almost as far as the door" (Koldewey, 1913; tr. 1914, p. 59). The anteeella was connected with the cella by a single small opening facing the image of the goddess, which probably stood in complete darkness.

POLYCHROME ARCHITECTURE AROUND 3000 B.C.

Apart from architectural articulation of the walls, both internally and externally, a refined enrichment of architectural surfaces had also come into being before 3000 B.C. Polychrome cone mosaics covering the massive semi-engaged columns of the temple complex of Uruk IV have been preserved, and the richness **165** of the high reliefs and the freestanding copper bulls in the Ninhursag temple at Al ‘Ubaid, about half a millennium later, indicate the advanced development of Sumer at this period.



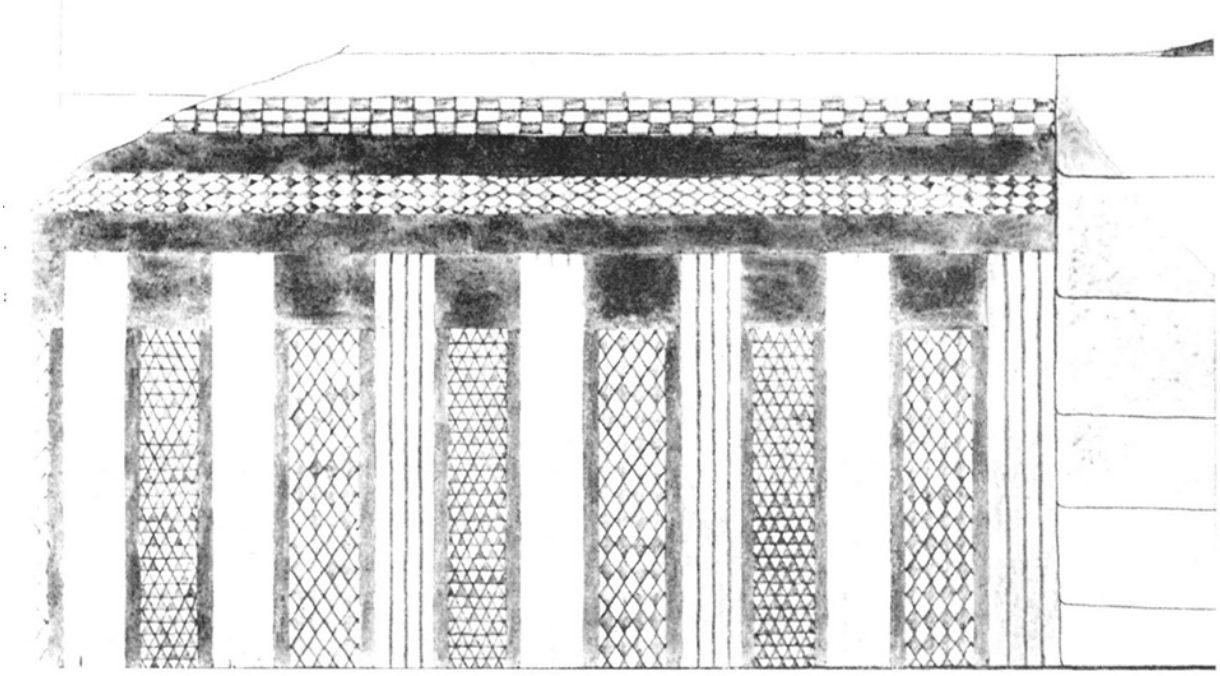
MODEL OF PAINTED TEMPLE, AL ‘UQAIR: *The buttresses of the curved lower terrace are similar to those used later in building the ziggurats. Before 3000* B.C.

The fullest insight into the use of color on interior walls is afforded by the so-called painted temple of Al ‘Uqair, about forty miles south of Baghdad. In **above** this man-made sanctuary the prehistoric urge to give form to what is essentially immaterial can again be recognized. We cannot expect the great richness of the prehistoric symbolism of the cavern walls,

whose images were the outcome of thousands of years of experience. We stand here at a new beginning.

By the use of highly refined techniques, Lloyd and Safar were able to rescue the exceedingly fragile and fragmentary frescoes of the painted temple and thus open up for us a reliable view of the manner in which the temple interior was painted — around 3500 B.C. according to them (1943, pp. 132-58), though it may have been nearer to 3000 B.C.

The ground plan of this temple was normal: a long hall with small chambers along both sides; the façade articulated into a series of niches and fluted buttresses. **202** Its dimensions were almost identical with those of the white temple of Uruk. Like this, too, it was raised up on a high terrace. "The wall faces inside the building were also carefully mud plastered. Every surviving square foot bore traces of color washes or painted ornament. The almost insuperable difficulty of preserving or even recording more than a small percentage of these frescoes" is then recounted by Lloyd (ibid., pp. 13.9-40). When first exposed, they were as bright as the day they were applied more than five thousand years before, but they faded within a few hours. Nevertheless it proved possible to establish the system followed in painting the interior walls. First came “a band of plain color, usually some shade of red, forming a dado about 1 meter high all round the room. Above this there would be a band of geometrical ornament about 30 cm. high” (p. 140). Finally, on the upper part of the walls, a running frieze of animals and human figures upon a solid white ground.



ALTAR FRESCO IN PAINTED TEMPLE: *Here we can glimpse the surface treatment of a protohistoric façade. The recesses between fluted buttresses are covered with triangular and diamond-shaped patterns. The horizontal cornice has two ornamental bands, the upper one probably protruding*

The altar was treated with special care. It was of considerable size: the solid brickwork was 2.60 meters wide with a projection of 3.60 meters. “On the right side a flight of six shallow steps" (ibid.) led up to its surface. Naturally, at that period, no statues of the god yet stood upon it. Upon the face of the altar and both sides, right and left, were found “the best-preserved paintings in the building” (ibid.). Here by chance we are given a singular insight into the total treatment of the façade of a protohistoric temple: “The design on the front is of an architectural character, and one secs in it the representation of the façade of a **210** building, the altar itself, in fact, being treated as a miniature temple. On the buttresses even the three flutes are represented by vertical lines, while the recesses between arc filled with a geometric pattern comparable to the mosaic ornament found in a similar position in several temples at Warka [Uruk]. . . . The vertical stripes representing buttresses were painted alternately white and yellow” (pp. 140-41). The recesses between the buttresses were filled alternately with diamond-shaped and triangular patterns, both of ancient symbolic meaning. These are also the dominant motifs of the Al ‘Ubaid pottery and of the mosaics on the columns of the temples of Uruk and Al ‘Ubaid.

LION FRESCO IN PAINTED TEMPLE: *The large spots which make this lion appear to be a leopard may be a survival from prehistoric times. Another lion found by Layard at Eridu also had circles marked on his body*

The horizontal cornice of a temple façade was also skillfully brought out on this altar painting by two long horizontal bands, one filled with a rhomboidal pattern, the other with rectangular checkers. These bands were separated from one another by an unbroken line of darker paint.

Right and left of the altar, like protecting guardians, two "excellently preserved **211** animal figures" (p. 141) were painted (now in the Baghdad Museum): one "couchant," the other sitting.

Lions or leopards? Lloyd puts it thus: "Both are what one would normally in heraldic painting call 'lions'; but, since they arc covered with

black spots on a white ground, perhaps the word ‘leopard’ would be more appropriate” (ibid.). All later guardians were lions. It is very possible that we have here a late survival from prehistoric times and that the “leopard” with its heavy outline stems from a far-distant ancestry. Are its unnaturally large black spots not reminiscent of the dots and disks of Aurignacian times or the large black dots on the two **1:149** horses of Pech-Merle, which were in no way intended to represent a piebald horse?

Iconographically it is interesting to note that the jaws of these guardian “leopards” were already threateningly agape, as was later the case with all the **4 f** Mesopotamian lions, in contrast to the lions of Egypt, which were depicted in brooding tranquillity.

The mud-brick temples of Mesopotamia were often solidly decorated with rich colors, enabling the base material from which they were formed to be forgotten. On the exterior façade, a somewhat excessive degree of subdivision in the ornamentation demonstrates that this was but a beginning — a first experiment. The interior handling of color was far more free: to some extent it reminds one of some of the small painted Romanesque churches still to be found in Alpine areas.

ON THE SIGNIFICANCE OF THE EARLIEST MONUMENTAL ARCHITECTURE

The first appearance of the man-made temple is synonymous with the appearance of monumentality in architecture. The age-old yearning to establish contact with invisible forces was, for the first time, given an architectural form. The sequence of temples in the numerous strata at Eridu, Tepe Gawra, Uruk, and elsewhere showed no signs of the anthropomorphic images of gods which appeared later with the rise of kingly rulers.

In the graves and tombs of Tepe Gawra, of which more than four hundred were discovered, numerous objects were found: beads, buttons, stamp seals, figurines of animals, pendants, and amulets. In the lowest levels and in the soundings at the base of the mound, small crude fertility figurines were found — a perpetuation of earlier Venus statuettes. They "may be considered as representations of the Mother Goddess. . . . Nearly all specimens conform to a standardized type in which the woman ... is always shown holding her breasts, which are rather prominently modeled. Heads arc merely pinched" (Tobler, 1950, p. 163). This makes apparent why, in the Early Dynastic period, the power of Inanna-Ishtar, goddess of fertility, love, and war, was so great.

Also, the white temple of Uruk and the painted temple of Al 'Uqair yielded no signs amid their relics which could point to an anthropomorphic pantheon. It was only after the Akkadian period that these appeared in full abundance.

It is not certain whether the long, stretched-out cella of the early temples ever contained the image of a god at its far end. In the temple of Tell Asmar, Frankfort **204** and his associates found ten figures "which seem to have formed the complete sculptural furniture . . . buried together under the floor beside the altar" (Frankfort, 1954, p. 24). These statues (most of which are now in the Oriental Institute in Chicago and the largest one, a man and a woman, in the Baghdad Museum) raise the question of the appearance of deities in their anthropomorphic form. Whether the tallest figure, which was about thirty inches high, can really be identified as Abu, god of fertility and

vegetation, is not absolutely sure. Even though he is larger than the others he holds his hands in the same position of prayer as they do.

The religious equipment found in these early temples consisted merely of an altar and an offering table. It is consequently uncertain whether the religious center of Eridu was, from its beginning, dedicated to the service of a definite deity or, to put it more strongly, whether in the fifth millennium Enki, the Sumerian god of water and wisdom, whose cult had its center at Eridu, existed at all. Indeed, it seems highly improbable. The first definite signs of his existence appeared only in one of the upper levels (Temple VII), where “the whole of its floor was a layer of *fishbones,* nearly six inches deep" (Lloyd, 1947, p. 581), which were taken to be offerings to Enki, god of the waters, though there was no image of the god.

The organization of the interior space of the temples before 3000 B.C. testified to a desire to attain direct contact with invisible powers with no intermediary aid of anthropomorphic deities. This represented just as great an achievement of **1:293 ff** the creative imagination as the first drawings of Aurignacian man. That was the earliest beginning of art, this the earliest beginning of architecture.

The tragedy of archaeological excavations is that the scanty remnants spared by the reluctant earth must again be obliterated — this time forever —in order to uncover the strata below them. Only memories remain, so far as they can be recorded in plans and photographs. But these memories should be kept alive.

In these simple structures of sun-dried clay the flame of inspiration burned brightly. There is no question of arousing feelings of inferiority or a desire for imitation, but an understanding of this early development should form part of the groundwork of education in art history and architecture: not so much to record the facts as to strengthen belief in the power of human imagination. The first beginning of architectural history lies here in these early temples, and here alone. With the single exception of the ziggurats, Mesopotamian architecture, from this point on until it reached its close in the sixth century, was obscured by the radiant phenomenon of the Egyptian development.

PART VI ZIGGURATS: STAIRWAYS OF THE GODS

After the preliminary period, which encompassed the first beginnings of monumental architecture and ended with the opening of recorded history, there came a break. The conception of architecture as the molding of interior space was not disrupted suddenly, but a change became noticeable as soon as power oyer men and the means of production came to be concentrated in the hands of a single man.

The urge to build began to move in the direction of erecting massive volumes: volumes placed freely in space. Parallel with this concentration came an increasing suppression of interior space. In the architecture of palaces or temples, wherever they arose in the ensuing period — in the Middle East, Egypt, or Crete — it can be observed that rooms have become long and narrow, just like **204** the Sumerian cella toward the Akkadian period. When large halls were needed, they were filled with a forest of gigantic columns, as in the Egyptian temple of **509** Karnak or, nearly a millennium later, in the hundred-pillared throne room of Darius at Persepolis.

The grandest expressions of this urge to place enormous volume in space are the ziggurat and the pyramid. Their massive construction attained dimensions previously unknown. They arc both the manifestation of a dominant ruling power and the expression and symbol of contact established — as far as was humanly possible — with the superhuman forces.

DIFFERENCES BETWEEN ZIGGURAT AND PYRAMID

Even though the ziggurats took on their monumental form more than half a millennium later than the pyramids, we will discuss them here in relation to general developments in Mesopotamia.

Differences between the two were apparent from the beginning. Only when these are fully appreciated can one come to an understanding of their dissimilar forms. Both pyramid and ziggurat retained — from the beginning to the end of their development — the distinguishing features of their different origins. Their subsequent development can always be traced back to their different starting points.

The ziggurat arose within the city of the living as a temple or altar upon a staged tower within the temenos (temple precinct). It was accessible to its summit.

The pyramid arose in the desert within a necropolis — a city of the dead. It was totally inaccessible.

The ziggurat was normally dedicated to the god to whom the city "belonged" — in Ur the moon-god Nannar, in Eridu the water-god Enki, in Nippur the storm-god Enlil. This introduced a notion of eternity.

The pyramid was both the tomb and the eternal abode of the king as son of the sun-god Ra. Even with its highest spiritual significance as the king's daily link between this world and the next, each pyramid was allotted to a particular king, who was immediately succeeded by another.

With their polished limestone or granite surfaces, the pyramids stood amid the desert sands, untouchable. In whatever sacred awe the ziggurat was held — however unapproachable it was to the common people — its monumental flights of steps made it accessible, and at the same time ate into the solid mass of its volume. The ziggurat, with its temple or offering place on the topmost platform and, later, a lower temple in the temenos, was the abode of the god. Here, at an annual festival, he was joined for one night by a priestess in sacred marriage **(***hierosgamos*), after which the priestess was probably sacrificed.

The ziggurat was part of the organism of the city. Though it stood within a walled inner court with a forecourt, it still belonged to the city and

was involved in its life. In its classic period, as at Ur, the most important civic buildings — the palace of the king, the treasury, and the dwelling of the high priestess — all stood in close proximity to the ziggurat.

The ziggurat may be considered older or younger than the pyramid according to the point of view adopted. It was older if one accepts as its starting point the terraces, raised on one or two steps, that formed the base of many temples around **209** 3000 B.C.: the germ of its classic form. It was much younger than the pyramid if one considers its independent existence to have begun with its many-stepped form, which appeared around 2000 B.C., during the Third Dynasty of Ur.

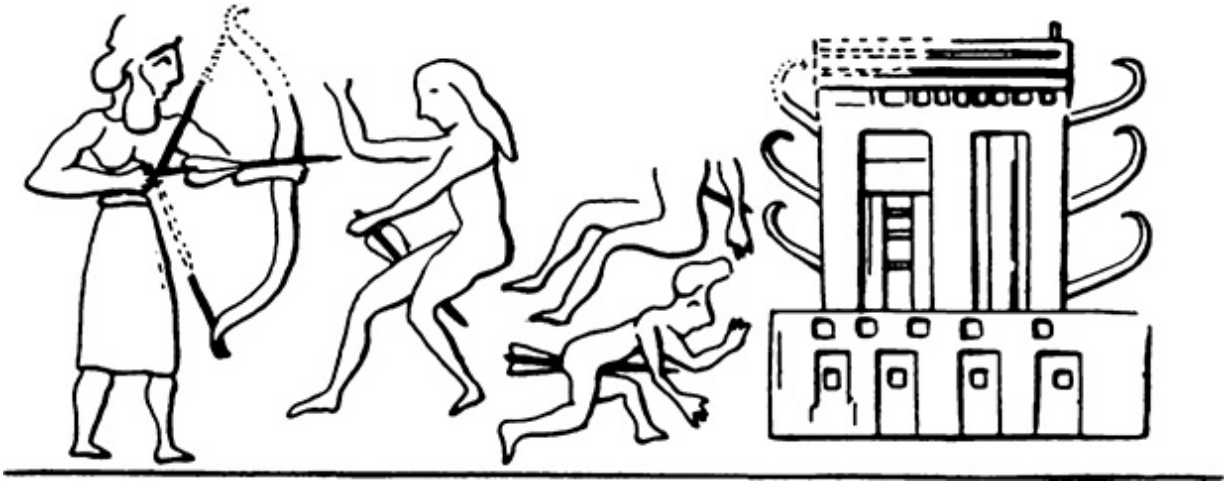
Earlier staged towers may have existed. They appear on cylinder seals before this time, but their dimensions in this small scale cannot be calculated, and no actual ones have yet been discovered.

Pierre Amiet has traced the urge toward the vertical *(culte en hauteur)* — deeply rooted in the notion of the ziggurat — back to its origins as a stepped altar (1951, 1953, 1959). The best-known representation is upon the uppermost **120** band of the great alabaster vase from Uruk (Jemdet Nasr period), where a stepped altar is shown accompanied by the emblems of the goddess Inanna. It "could be mounted for the presentation of offerings or for prayer" (1951, p. 85). This illustrates the basic function of the ziggurat: to provide an offering place to the deity. High altars figure frequently upon Early Dynastic cylinder seals. They could be mounted by ladders and perhaps also by steps. They served as landing stages to the "god in his boat" who hovers above them. Upon them he could consummate his sacred marriage with the priestess, by which "he brings to the world the renewal of life in all its forms" (p. 88).

The most rewarding representation of a very early staged tower is upon a seal from the Protoliterate period; it came from Susa, of whose earliest architecture practically nothing remains. This seal shows "the most ancient definite **below** image of a temple on a high terrace" (1953, p. 28). **A** tall structure rises above a high substructure articulated with recessed panels. Before it three prisoners are massacred by the king as an offering to the deity (ibid.). Six large horns project from the towerlike structure, like those that appeared two millenniums later on a relief of Assurbanipal, also from Susa. On the early-third-millennium seal they seem to be an enlarged version of the abstract bulls' heads painted on the mortuary vessels found in fourth-millennium graves as bestowers of strength; these are sometimes

shown singly, and sometimes in a chain as on the **454** vessel from Tepe Musyan.

The pyramid was the result of a sudden urge of such passionate intensity that it can almost be said to have arisen overnight. From the mastaba, whose sloping walls were only a few meters high, there was a sudden leap to the stepped pyramid of King Zoser (2643-2624 B.C.) at Saqqara, the experimental **297 ff** structure and gradual enlargement of which can be closely traced.



FORERUNNER OF THE ZIGGURAT: *Towerlike building on buttressed terrace. From a third-millennium cylinder seal found at Susa, now in the Louvre. Drawing by Amiet*

Within a few decades after this, the pyramid acquired its standard form, attaining a massivity and magnificence during the Fourth Dynasty, under Sneferu and Cheops, that were never to be achieved again.

The great age of the pyramids covered only a few centuries. With the ziggurat it was quite otherwise. Throughout the existence of the Land of the Two Rivers, the ziggurat remained the central monument of its religious cult. It was held in high esteem in every period: Sumerian, Akkadian, Kassite, Babylonian, Assyrian. Even Alexander the Great, when he entered Babylon, wished to restore the famous ziggurat Etemenanki, the Biblical Tower of Babel, but he died before he could do so.

A final resurgence of ziggurat building took place under his successors, the Seleucid kings. During the height of their power, in the third century B.C., one of them constructed a ziggurat for Anu, god of the heavens, in the age-old religious center of Uruk. The building of this structure followed the traditions of almost two millenniums, and it is to this event that we owe our

clearest insight into the ceremonies and significance of the ziggurat (Falkenstein, 1941, pp. **244 ff** 27-29).

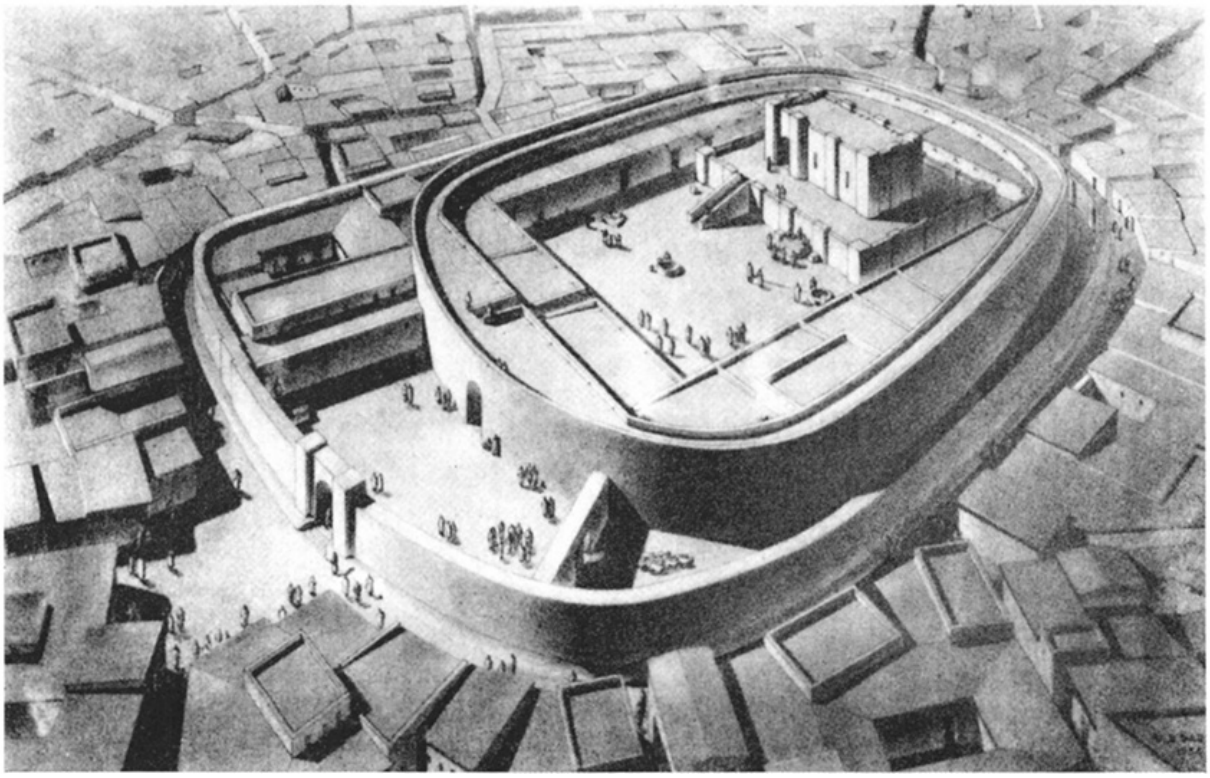
Both ziggurat and pyramid derive their existence from man's awakened urge toward the vertical as a symbol of contact with the deity, contact with the sky. The ziggurat required more than a millennium to reach its zenith, the limit of its possibilities; the pyramid required only a century.

THE CLASSIC FORM OF THE ZIGGURAT

The form of the ziggurat — a tower composed of a series of stepped terraces with a temple on its summit — held good throughout Mesopotamian history. Its eminence, however, began to diminish after the collapse of the Neo-Babylonian empire in 538 B.C. But ziggurats remained standing for centuries, and the successive foreign rulers of the country prided themselves on their regard for them: the Seleucidae on their erection of new ones and the Parthians on their restoration of old ones.

The customary idea of the ziggurat is based on the Biblical description of the Tower of Babel (Gen. 11:1-9) and on Herodotus' account of his visit to Babylon (Ravn, 1939; tr. 1942). Upon a fifth-century Greek, the strange shape of the Etemenanki ziggurat must have made as deep an impression as its height and the brilliant colors of its seven terraces.

The actual form of the ziggurat was rather different in its early stages in the protohistoric period from its classic development around 2000 B.C., though its series of superimposed, receding steps remained constant.



THE OVAL TEMPLE, KHAFAJE: *Raising the sanctuary on two terraces creates a certain separation from the surrounding dwelling houses, but it is still closely associated with workshops of the temple community. From Delougaz*

The raised terrace of the Ur I temple of Ninhursag at Al ‘Ubaid was six meters high, that of the white temple at Uruk, twelve to thirteen meters from **202** the ground. In the temples of Al ‘Uqair and Khafaje there were indications of the **209, left** beginnings of a third level. Raising the level of the sanctuari es at these sites tended to separate them from more secular structures, but even in the final version of the temple at Khafaje a certain intimacy between the sanctuary and its surroundings is still discernible.

The oval shape of the terraces of the temple of Khafaje is reminiscent of the earliest architectural development. Delougaz discovered that the temple at Al ‘Ubaid stood on a similar oval terrace (1940), so it is possible that these two temples are approximately contemporaneous. The whole of the Khafaje temple structure was surrounded by dwellings, an arrangement not unlike the setting of many large cathedral closes within the residential organisms of medieval cities. The buildings surrounding the oval terraces also served as warehouses for the temple stores.

When the ziggurat achieved its classic form, all this vanished. Supplies needed for the temple community were then housed elsewhere. The chambers along the inner side of the enclosing walls of the courts were, for the most part, offering places — as at Ur and Uruk.

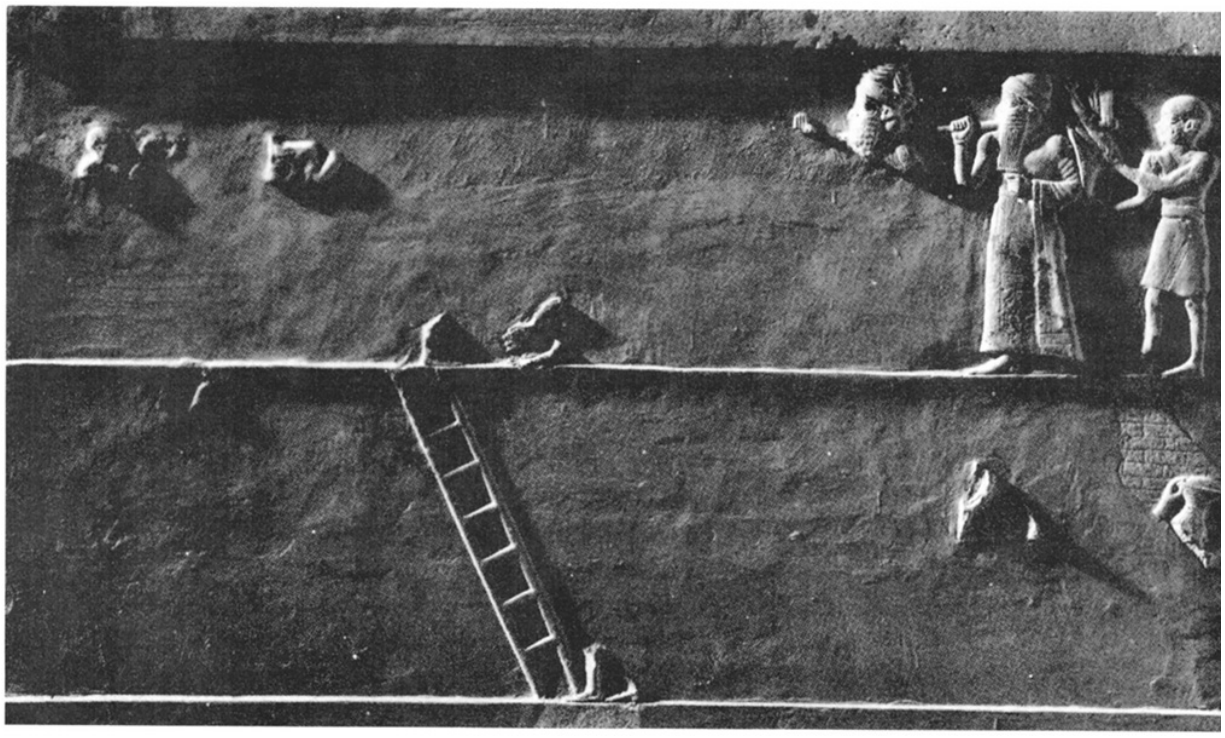
The ziggurat of Ur

The ziggurat of Ur arose in the midst of the highest culture then existing. It was not completely isolated. Even today the ziggurats of Eridu and of Al ‘Ubaid are within view from its summit. It stood in an urban and an agricultural landscape, well irrigated by numerous canals: a scene past imagining today, when nothing can be seen on the journey from Eridu to Ur save swarms of locusts clattering against the windows of the car. At that time the Euphrates flowed past the two harbors of the city of Ur. Not far away, it joined the Tigris, and shortly after flowed into the sea near Eridu, which was linked to Ur by a canal. Thus Ur, standing upon the highest strategic point of this level land, was destined to become the capital city of the earliest civilized state.

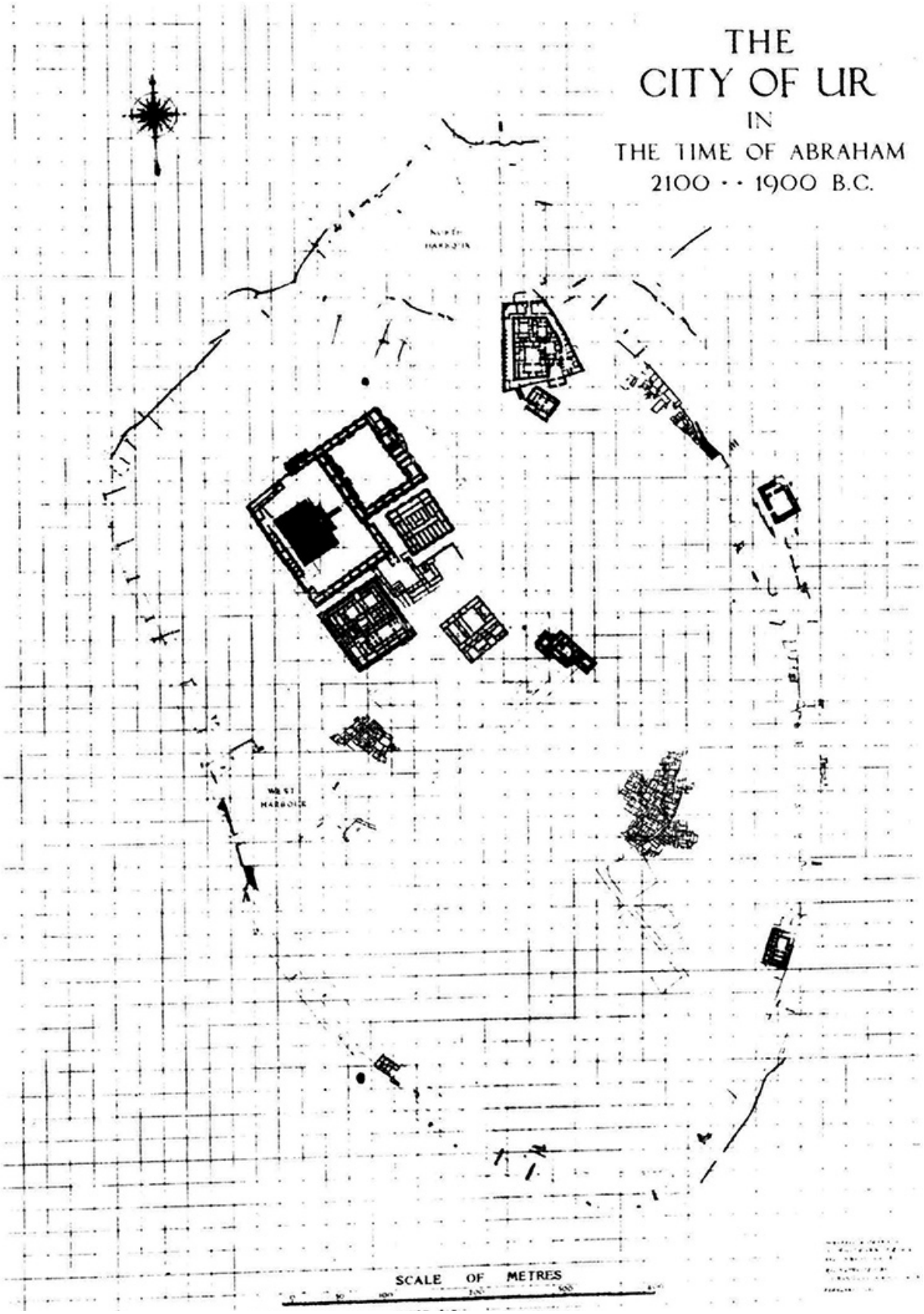
Its ziggurat was one of the first to attract the attention of archaeologists. As early as 1854, excavations were undertaken by J. E. Taylor, British Consul at Basra, but the great discoveries were made between 1922 and 1934 by Woolley. Beneath the ziggurat he found parts of buildings dating back to a thousand years earlier.

The period of the Third Dynasty of Ur, which saw the classic form of the ziggurat, was the final and most glorious upsurge of Sumer, after a long period of servitude. None of its rulers was more renowned than Urnammu, founder of the dynasty and builder of the ziggurats of Ur, Eridu, Al ‘Ubaid, and Nippur. The ziggurat of Ur is by far the best preserved of these today. It must have continued to inspire a holy awe, for even the last king of Babylon, Nabonidus, continued to add to Urnammu’s work, burying cylinders recounting his additions in each of the four corners of the uppermost terrace. Even the name of Cyrus the Great is linked with the ziggurat of Ur. Like every religious edifice in Mesopotamia **right** from start to finish, the ziggurat was erected diagonally to the points of the compass, though, as in the case of the temples, the rectangular ground **227** plan (here 200 x 150 ft.) made this orientation somewhat approximate.

Urnammu had permitted himself what was a great luxury at that early date: he decked the floor of the first terrace with a layer of burned bricks, 2.5 meters thick. Their superb workmanship has held up to the present day, and it is to them that we owe the survival of the original form of this ziggurat.



STELE OF URNAMMU: *Detail. King Urnammu* (*2065-2046* B.C.), *the great ziggurat builder of the Third Dynasty of Ur, stands to the right with builders tools on his shoulder. Before him Nannar, the moon-god, wearing his four-horned crown. Behind him a servant. To the left, fragments of a scene representing the erection of the ziggurat of Ur*


THE
CITY OF UR
IN
THE TIME OF ABRAHAM
2100 · · 1900 B.C.
SCALE OF METRES

MAP OF THIRD DYNASTY UR: *Ziggurat and sacred precinct to the left. The densely built so-called quarter of Abraham to the right. Harbors on the Euphrates to the north and west; ca. 2000* B.C. *From Woolley*

According to Sumerian concepts, the city of Ur and its ziggurat belonged to ***222*** the moon-god Nannar. In the second row of the great stele of Urnammu, the king is shown as a royal building craftsman, carrying a pickax on his shoulder. **123** Above him sits the moon-god upon his throne, with a long flowing beard and a four-horned crown — an ax pressed against his side and, in his hand, "an emblem conventionally known as 'the ring and staff' and often interpreted as a symbol of justice. This is probably correct, but on this stele the symbolic objects are recognizable for what they are, namely, a measuring rod and line'' (Frankfort, 1954, p. 51).

It is difficult to establish whether the stepped tower of Ur had any direct forerunners or whether, like Zoser's stepped pyramid, it was a sudden creation. In any case it is the first demonstrable structure with three levels. It is also the earliest ziggurat with such wonderfully preserved terraces, niches, and sloping walls. These rose to a height of 15 meters above the court in which the ziggurat stood. A second and a third terrace followed until a total height of 21.33 ***226*** meters was attained.

VIEW FROM THE ZIGGURAT OF UR: *Baked bricks on the top of the ziggurat occupy the foreground. Beyond them stretch the buried temples and city of Ur. The dark line on the horizon indicates the limits of the city*

The monumental stairway

The first level, bound up with religious concepts, afforded an opportunity for the most inspired architectonic invention of Mesopotamia: the monumental stairway. Flat against the northcast wall, two symmetrically opposed stairways ***226*** made a dignified descent into the temple court. The main stairway, on the central axis of the ziggurat, jutted far out from the structure and united with the **227** two side stairways on the level of the first terrace, where it was bridged over with a tower. From this point the central stairway narrowed and led to the uppermost terrace. This created a tremendous perspective for the priestly processions. A huge pier buried in the body of the ziggurat supported this flight **228** of stairs.

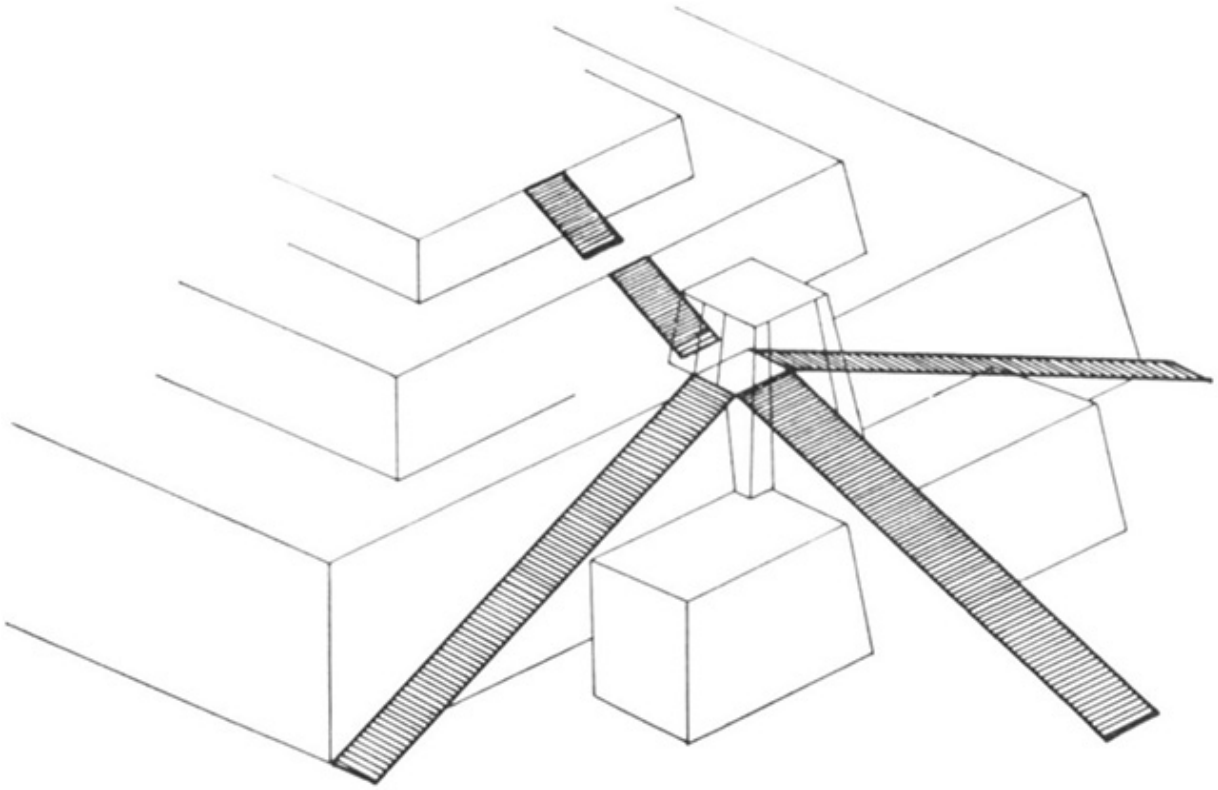
A small stairway had been used earlier to lead up to the terrace of the temple at Uruk, and a broader one to the terrace of Temple VII at Eridu.

Temple **202** towers with several terraces are shown on early cylinder seals, but no actual ones have yet been discovered.

At Ur, for the first time, the bridging of a difference in levels — a purely technical expedient — became a constituent element of monumental architecture. The broad central stairway started far off from the body of the ziggurat and its continuation reached the uppermost terrace. The notion of a ladder between heaven and earth was marvelously portrayed. Characteristically, it was not the satisfaction of purely material needs but the desire for a symbolic realization of the link between god and man that gave rise to this new and expressive architectonic form.

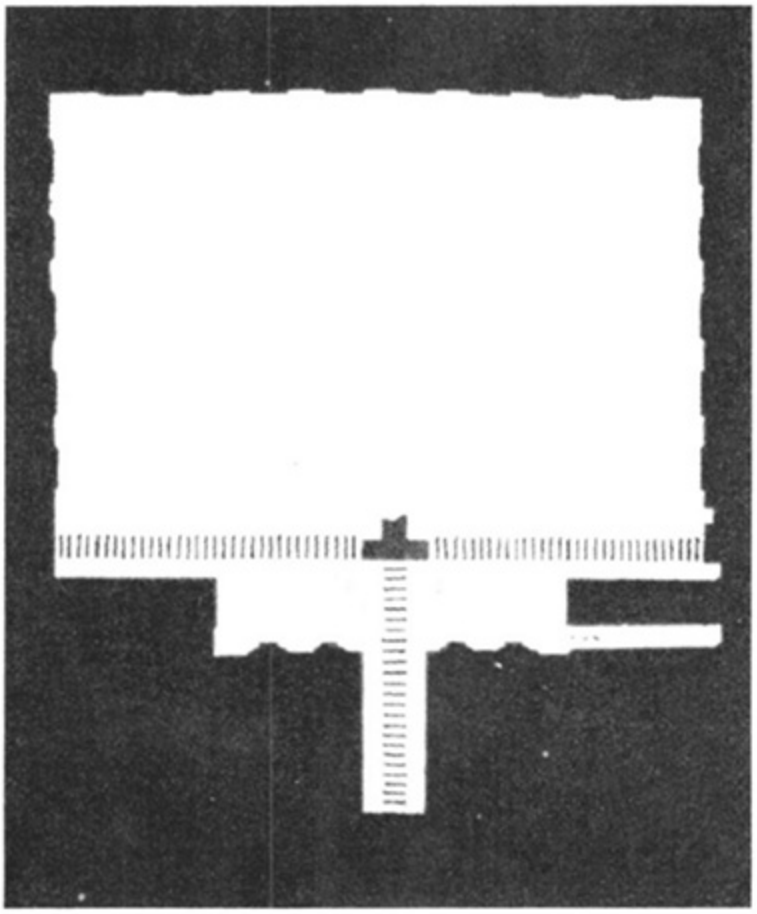
A building 21.33 meters high is a very limited goal. But men are obliged to use limited means to project limitlessness, and the desire for eternity — for limitlessness — was manifested here by a limited edifice. Building was a sacred enterprise. It was the medium of union between man and god.

LEFT-HAND STAIRWAY *of the ziggurat of Ur*

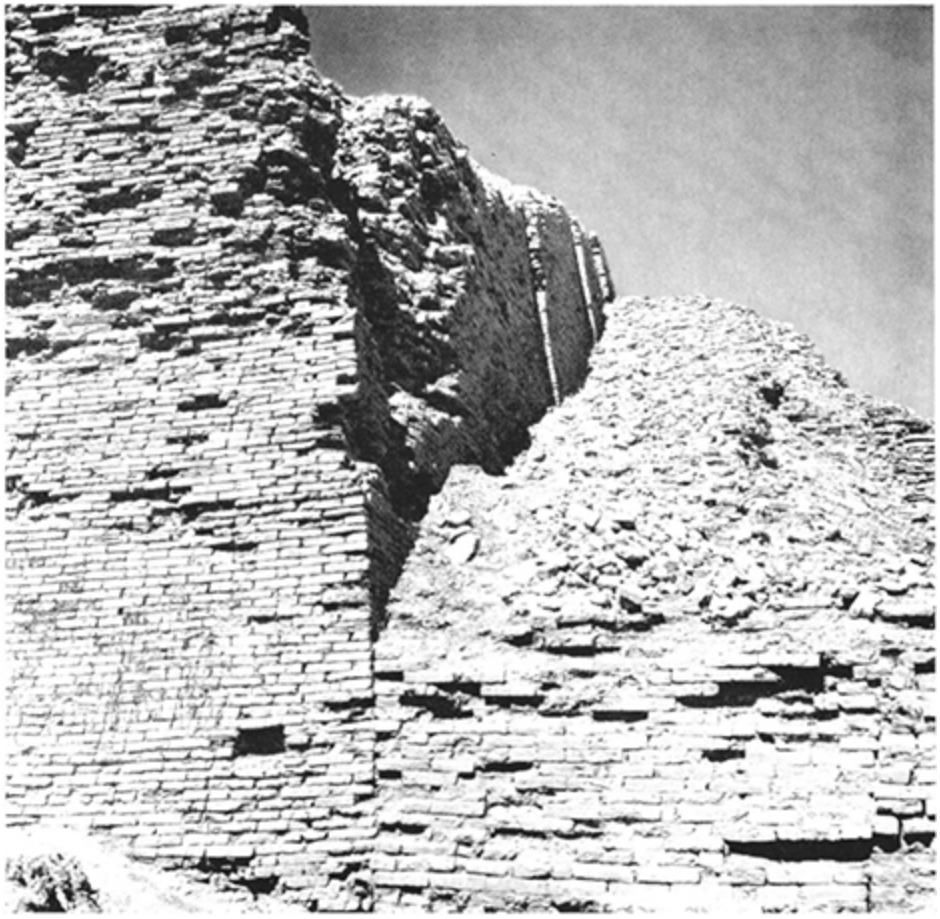


ASCENDING STAIRWAYS *of the ziggurat of Ur: Schematic drawing after Lenzen*

THE CENTRAL STAIRWAY, *which protrudes boldly from the ziggurat of Ur*



SCHEMATIC GROUND PLAN *of the ziggurat of Ur, indicating its compact mass and three-branched stairway*



FOOT OF LEFT-HAND STAIRWAY, *showing the baked-brick structure of theziggurat of Ur*

The ziggurat of Eridu

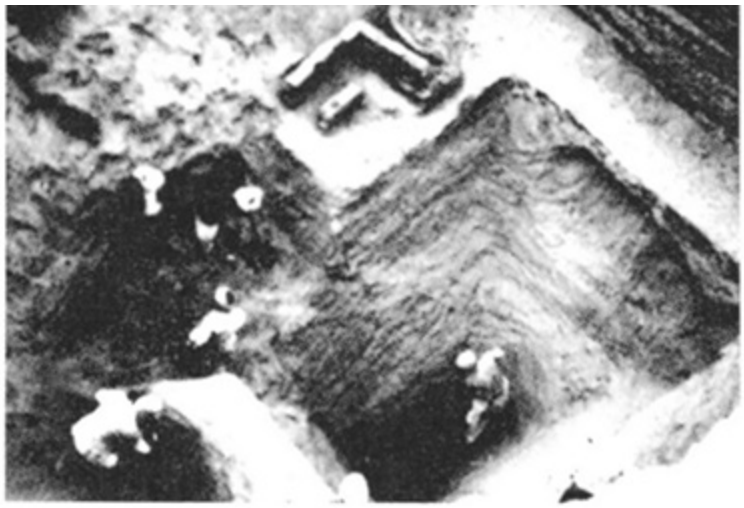
Eridu, one of the oldest religious centers, was the city of Enki, the friendly god of the deep waters and of wisdom. It lay within sight of both Ur and Al ‘Ubaid, amid fertile gardens on the shores of a sea that has since withdrawn some **below** hundred miles.

The ziggurat of Enki was for centuries one of the religious landmarks of Sumer. It was erected shortly before 2000 B.C. by that same great builder, Urnammu, and his son Shulgi, above the remains of sixteen levels of earlier **230, 231** temples which were excavated in 1946-49 by Lloyd and Safar. They found objects from the graves of a large cemetery which gave insight into the apparently idyllic lives of the population of Al ‘Ubaid times: a small clay model of a sailing **230** ship, the earliest known, was found in the grave of a child. Today the ziggurat of Eridu lies again beneath the sands.

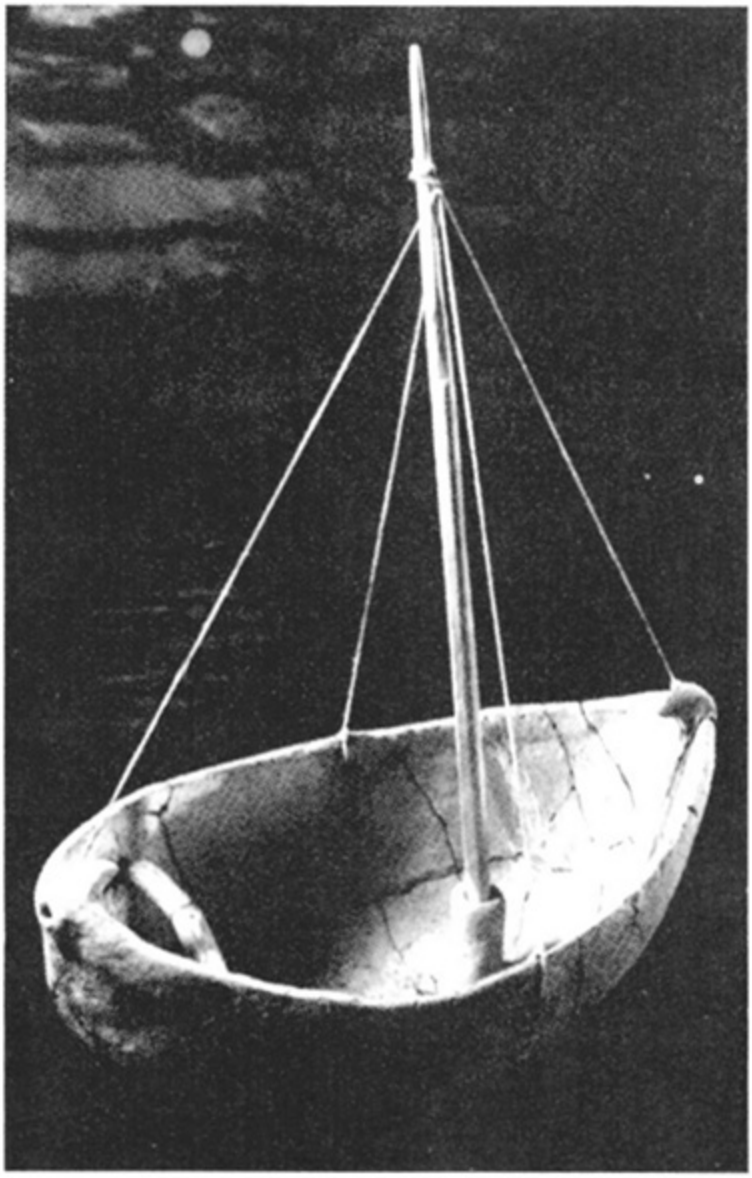
Remnants of the two lowest stages and **233** some marble steps from the stairway are all that now remains. From the rear it looks like a slope covered with newly fallen snow.

The significance of this ziggurat and the awe in which it was enveloped maybe gathered from a hymn recorded many centuries after its erection, in the time of Hammurabi, first king of Babylon. Some passages from a recent German translation indicate the intimate relations of the god Enki with his ziggurat.

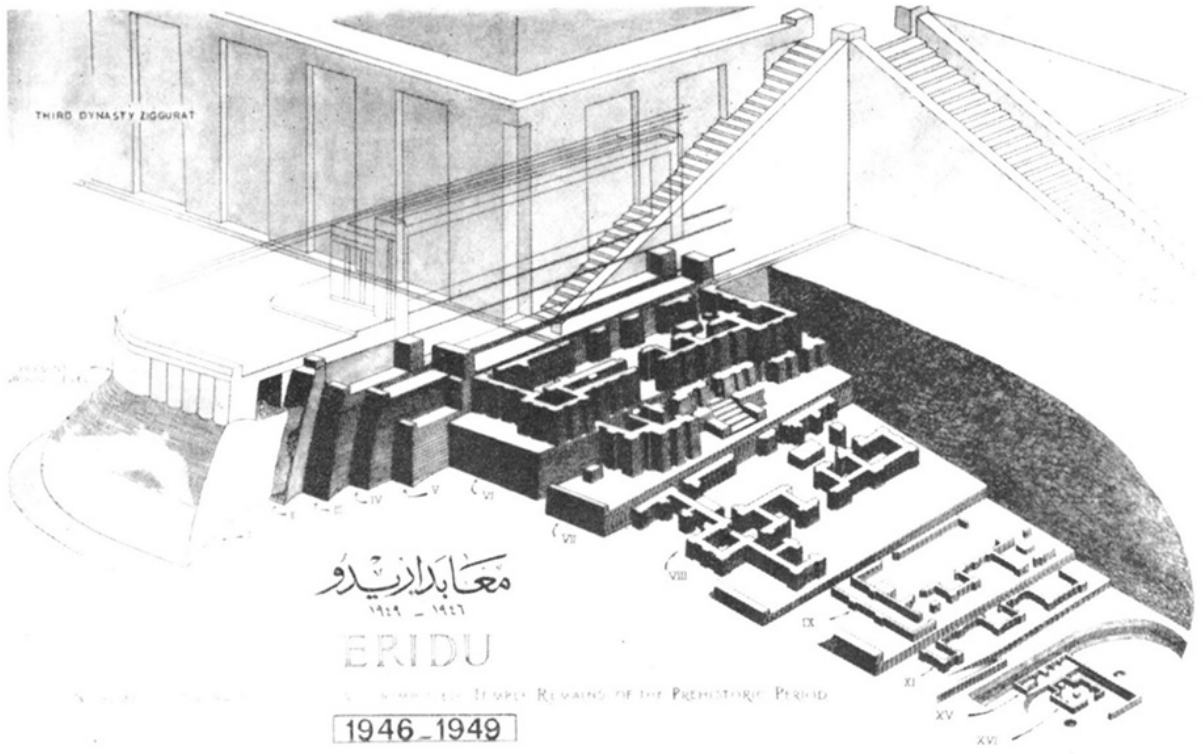
THE ZIGGURAT OF ERIDU *at the time of its excavation, its buttressed walls visible on the extreme right*



ERIDU TEMPLES AND ZIGGURAT: *Photomontage of the various levels excavated, from the ziggurat at the top to the earliest sanctuary on virgin soil*



PREHISTORIC SAILING SHIP: *The earliest known model. From a child's grave in the Eridu cemetery, Al 'Ubaid period*



ERIDU TEMPLES AND ZIGGURAT: *Drawing of the superimposed levels. The most interesting is Temple VII (see fig. 116*)

In the Eridu Hymn (Falkenstein and Soden, pp. 133-37 *passim*) the god himself designs his temple with his “holy stylus of reed":

> *Then the Lord of Apsu* [*the deep waters*], *the King Enki,*
> *Enki, the lord who determines destiny,*
> *Built his house all of silver and lapis lazuli . . .*
> *He built his house in Eridu on the shore* (*of the sea*).

The structure itself then comes to life and begins to speak. Perhaps this is not merely a poetic fiction, for the Sumerians had gods of the pickax and the brick mold. These were survivals from primeval animism and from totemism.

> *His brickwork speaks aloud and takes consultation (with its lord),*
> *The summit bellows like a bull.*

Then Enki’s messenger goes up to the ziggurat and says:

> *In thee a mighty high place has been founded*
> *Holy heaven is at thy threshold . . .*
> *House built on the rim (of the land), created for the perfected divine power.*

Finally the hymn ends with a banquet to Enlil, the god of heaven and father of Enki, who has invited all the other gods. Enlil says:

> *Great gods who have come here . . .*
> *My son has built himself a house, the King Enki,*
> *He has made Eridu rise up like a mountain from the earth . . .*
> *He has built his house of silver adorned with lapis lazuli.*

The Eridu Hymn, though recorded relatively late, yet has the atmosphere of that early period when the material, the human, and the divine were closely bound together — a period which had far more in common with prehistory than with the outlook of today.

In preparing a dwelling for a divine guest, the first thing to consider was its correct location. The most important problem was not the building itself but the selection of its site. When a completely new temple was to be erected, it was first necessary, throughout the history of Mesopotamia, to discover the wishes of the deities regarding the site. This is expressed symbolically in the Eridu Hymn when the god Enki himself draws the plan with his "holy stylus of reed."

It is for this reason that in places like Eridu, a sequence of temples is found lying one above the other. Each new builder felt reassured of the god's acceptance of this site. Later rulers took the utmost pains to track down the records of earlier foundations, which were engraved on cylinders, prisms, and small cones of baked clay. The last king of Babylon, Nabonidus (555-538 B.C.), dug "eighteen cubits below the floor of the temple of Sippar" (Dhorme, 1949, p. 184) to find the foundation records of the temple builder Naramsin who had reigned seventeen centuries earlier.

THE ZIGGURAT OF ERIDU, *present condition: View from the back, taken in 1954*

LATE FORMS OF THE ZIGGURAT

The classic form of the ziggurat developed little further during the periods of Babylonian, Kassite, Assyrian, and finally Neo-Babylonian rule. Indeed, its standard type remained almost unchanged for more than fifteen centuries.

André Parrot has counted thirty-three ziggurats in twenty-three cities (1953; tr. 1955, p. 26), but only two from the lengthy later periods are dealt with here: Aqar Quf, from the time of the Kassites, and the Neo-Babylonian Tower of Babel, Etemenanki.

Outside Mesopotamia, ziggurats continued to be built in increasingly elaborate settings. One of the finest is the ziggurat of Choga Zambil near Susa, built in the thirteenth century B.C., and excavated by R. Ghirshman (*Illustrated London News,* July 13, 1957, p. 76). The sides of its square base measure 350 feet and the outer enclosure was pierced by three gateways, the Royal Gate being guarded by four thirty-foot towers. This led into a vast forecourt containing an avenue of fourteen tables of sacrifice and a large jar for ablutions.

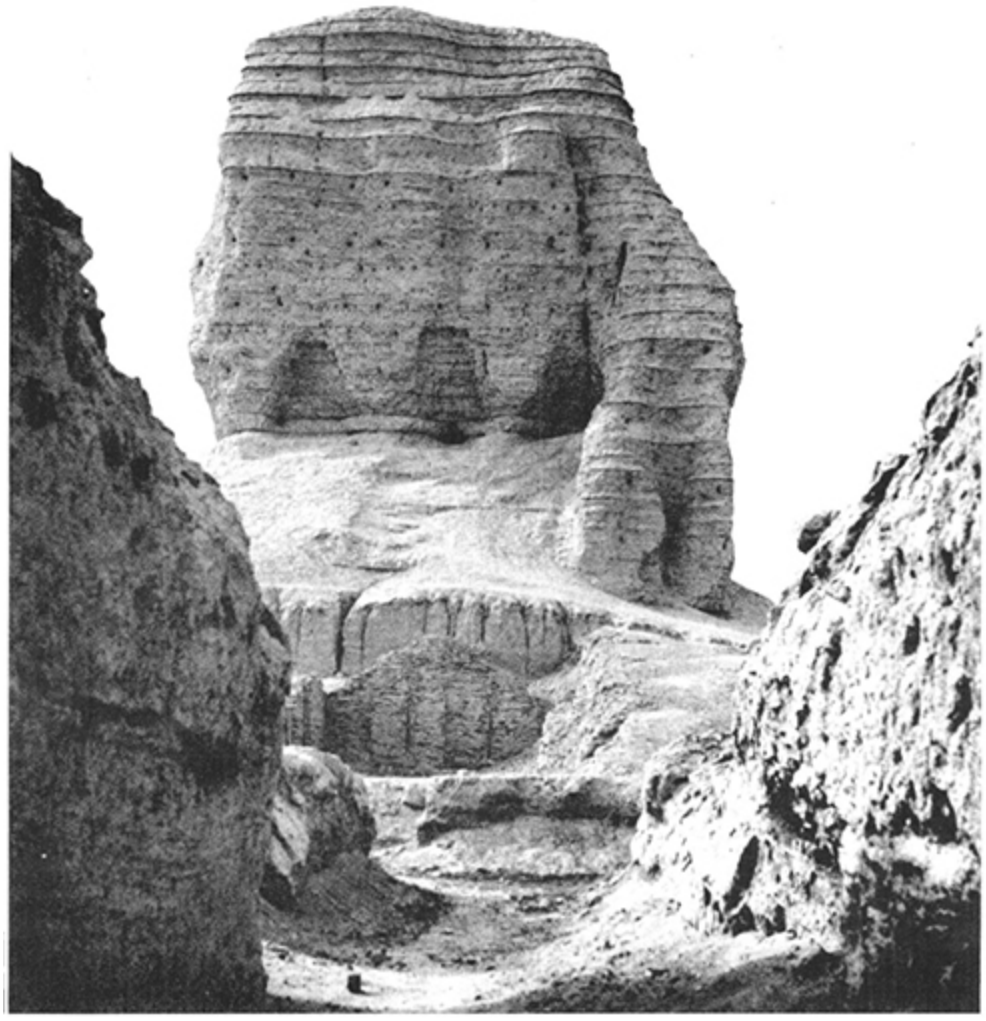
The ziggurat of Aqar Quf

right The temple tower of Aqar Quf (ca. 1400 B.C.), twenty miles northwest of Baghdad, is one of the few remains of about four hundred years of Kassite **19, 125** domination over Babylon and Sumer. As we mentioned earlier, the Kassites were warrior tribes from the Zagros Mountains, who swept across the great plains of Mesopotamia with their horses and war chariots. Little is known of them. Their strangest relics were sculptured boundary stones — *kudurru* — which were placed in the temples or out in the fields to keep the land inviolate.

126 A *kudurru* stele from about the fifteenth century B.C., now in the Baghdad Museum, not only displays the usual array of simple divine symbols — sun, moon, and stars — but the space bounded by its rounded

top was filled in with pictures of ziggurats and fabulous animals that convey a somewhat gruesome impression despite their artistic charm.

The ziggurat of Aqar Quf was the outstanding monument of Dur Kurigalzu, the newly founded government center named after its builder, Kurigalzu I. The elongated area covered by this city was shaped almost like a boat. Excavations by the Iraq Directorate General of Antiquities in 1942-43 uncovered the approaches to the ziggurat, its stairways and neighboring buildings, including the temple and palace (Baqir, 1944, pp. 5-10).



THE ZIGGURAT OF AQAR QUF: *Very steep slope, ca. 1 in 10;* H. *ca. 57 meters. The only great monument remaining from about four centuries of Kassite rule; ca. 1400* B.C.

This tower is still remarkably well preserved. Seventeenth-century travelers believed it to be the Tower of Babel. Even today, on close

approach its height (57 m.), suddenly rising from the desert sands, is impressive. The ground plan is approximately square — 69 x 67.6 meters. It is far higher and steeper than the ziggurats of Urnammu, the slope being more than one in ten (9 cm. in 1 m.). Its foundations rest directly upon virgin limestone.

235 The photograph shows the ziggurat from the south. The main approach was by a central stairway with two side stairways. The three niches, which come out so strongly in the photograph, have no connection with the original structure.

We do not know the exact form of the ziggurat of Aqar Quf, despite its imposing height. The astonishing solidity of its structure bears the hallmarks of long experience. "After every eight or nine courses of bricks there is a layer of reed matting, bedded in about 8 cm. of sand and gravel. The reeds are almost unaffected by time and still have a strong tough texture. They have also been used to make great plaited ropes about 10 cm. in diameter, which at short intervals run right through the structure from side to side and act as reinforcement" (ibid., p. 6).

The intervening layers of reeds and holes for the reed ropes are visible in the photograph. In principle this structure does not depart from Sumerian building methods. In Sumer also, the main mass of the tower had been built up from layers of sun-dried bricks and reed matting, with reed ropes used both to drain off water and as a means of reinforcement. The craftsmanship is quite remarkable, and the steepness of the slope most unusual. It reminds one more of the **127** boulderlike Kassite boundary stones than of the quietly consistent rise of the Sumerian ziggurats.

Etemenanki: the "Tower of Babel"

The stepped form of the ziggurat persisted. But the number of stepped terraces, their height, and the lavishness of their adornment increased steadily. They were used for ever more elaborate ceremonies.

The Neo-Babylonian ziggurat Etemenanki may have been the Tower of Babel. Its height is estimated at seventy-five meters by some, by others at even ninety meters. Though this cannot be accurately established, it does give an idea of how height continued to increase during the last phase of Mesopotamian temple development. Etemenanki probably had seven

terraces. Upon its highest platform one or more temples were raised. Its adornment was magnificent. The stepped terraces were faced with strongly colored, glazed bricks, each terrace in a different color. Nothing is left of this splendor today but a pond of stagnant **below** water. After Robert Koldewey left in 1917, the inhabitants of the small town of Milla, nearby, robbed the uncovered surfaces of all remaining bricks.

The ziggurat continued to be the center of religious life throughout these later periods. Etemenanki stood within an almost square temenos, whose sides measured about four hundred meters. Outside this court stood the temple, Esagila. Both were dedicated to the city's god, Marduk.

The ziggurat was approached by a truly majestic *via sacra,* built for the New Year festival that took place at the autumn equinox. It was probably the longest and most ostentatious processional way that has ever been erected. It spilled over two sides of the walls of the ziggurat's courtyard; passed across the first stone bridge ever laid over the Euphrates River; went through the Ishtar Gate, flanked by its massive towers, and ran between the shining glazed bricks of its approach walls, adorned with more than five thousand animals in relief. At this stage the processional way was 12.5 meters above the level of the plain and was paved with white and red marble slabs.

SITE OF ETEMENANKI (*Tower of Babel*): *Only a pool showing the level of the subsoil water indicates the position of the great ziggurat of Babylon. After Koldewey stopped excavating in 1917, inhabitants of the neighboring town stole every brick from the uncovered walls*

Exaggerated pomp is often a by-product of despotic power, insecurity, and formalism. These ruins give an almost unbearable impression of this. Koldewey's large model of the city stands in the small museum at Babylon, and the eye seeks in vain here, as in the plundered reality outside, for anything that can give rest and satisfaction to sight or mind. What is the value of such a majestic processional way when it stands totally unrelated to anything else, falling away on either side into banality? Even with no knowledge of its imminent end, one could not but sense that uneasy sterility which so often sets in as soon as outward pomp takes the place of inner intensity. Babylon is an early instance of this: perhaps the first.

From 1899 to 1917 Koldewey could only clear the sacred precinct as far as possible and investigate its monuments, for the work of an excavator has seldom been so hampered by mountains of debris. Shafts sunk deep below

the ground (Wetzel and Weissbach, 1938, pl. 5) — a tribute to the period that developed underground railways — laboriously groped for the plan of the temple Esagila. But darkness still reigns over most of the city itself, which spreads over several square miles below countless mounds of sand. Wandering among these seemingly endless hillocks covering a buried city of a million or more inhabitants, it is impossible to evade the disturbing reflection that this was the first time that an ever-recurring fate caused an overlarge city to sink into utter oblivion.

BUILDING AS A ROYAL ACTIVITY

We can only grasp the inner content of early architecture if we direct our attention to the significance attributed to building as an activity. In ancient times, building was considered a sacred task calling for the highest levels of human imagination. The holy aura that surrounded it is symbolized by the hymn in **231 f** which Enki, god of the deep waters, himself designed his ziggurat at Eridu. Building linked man with god. Both Gudea of Lagash and Urnammu have testified to this in written and pictorial records.

The clay cylinder seals of the priest-king Gudea reflect great unrest among the Sumerian people. Recent research suggests that the reigns of Gudea and Urnammu partly overlapped. Gudea, deeply disturbed, was seeking the correct location and plan for a temple to the city's god, Ningirsu, son of the storm-god Enlil. This was revealed through dreams in which the god conveyed his wishes to Gudea, who then "bowed his head" and fulfilled the requirements.

A desire for the direct intervention of the god had induced the wish to build. Cylinder seals disclose the immediate cause: "A great drought. The flood waters do not rise." Then follows the promise: "When the foundations of my temple have been laid, the flood will come . . . fertility . . . oil . . . wool . . . from the cracked earth water shall spring" (Scharff and Moortgat, 1950, p. 278).

The numerous diorite and alabaster statues of Gudea are among the loveliest products of Neo-Sumerian sculpture. The largest of them, now in the Louvre, **114** shows the priest-king as a temple builder; he is seated, with the temple plan, a stylus, and a ruler upon his knees.

Urnammu, the great builder of ziggurats, was also a social and moral reformer. He framed what Kramer, who deciphered it, has called "the oldest law code as yet known to man" (1956, p. 49). We say "as yet," for the three hundred famous laws of Hammurabi of Babylon, on the Louvre stele, have twice in recent years been superseded by more ancient codes. Urnammu's fragmentarily known laws give, however, a side light on the growing humanity of Neo-Sumer. They are "of very special importance for the history of man's social and spiritual growth. For they show that, even

before 2000 B.C., the law of 'eye for eye' and 'tooth for tooth' . . . had already given way to the far more humane approach in which a money fine was substituted as a punishment" (p. 50). This human background affords a glimpse of the spirit of the period that produced the classic form of the ziggurat.

The stele of Urnammu was found in the forecourt of the ziggurat of Ur, its fragments scattered over the pavement of the courtyard. Although many pieces are still missing, what remains sets forth the greatest concern of this last period of Sumer: the actual building of the ziggurat of Ur. At the summit of the stele **123** are the all-powerful gods in the form of the major constellations, with the anthropomorphic moon-god seated upon his throne. In what remains of the **222** second row one can make out two figures, the king, with builders' tools on his shoulder, and a companion.

The belief that the royal builder, the man who stood in closest relationship to the gods, should work with his own hands upon the building, persisted to the end of Mesopotamian history. E. Dhorme cites the texts of Nabopolassar, one of the Neo-Babylonian monarchs: "For my lord Marduk, for him, I bowed down my neck, I kilted up the garment which clothes my royalty, I carried bricks and clay upon my head'' (1949, p. 187).

THE SIGNIFICANCE OF THE ZIGGURAT

Opinion varies as to the meaning of the ziggurat. The theory that ziggurats were erected over the graves of kings or gods has been abandoned (Etemenanki was at one time regarded as the grave of Marduk). This idea was derived from Greek and Roman sources.

Andrae, the brilliant excavator of Assur, described the ziggurats as "earth mounds, which the earliest inhabitants of this marshy plain, threaded with arms of the river, erected as dwelling places both for god and man to protect them from the dangers of inundation" (Lenzen, 1.942, p. 3). This rational explanation is easily understandable; the actual facts were only realized later, after excavations at Uruk, Tepe Gawra, Eridu, and elsewhere. In the protohistoric Al 'Ubaid period and in the following Early Dynastic period, temples were built upon "high terraces," as Lenzen called them, above the accumulated ruins of **231** earlier temples, as in Eridu.

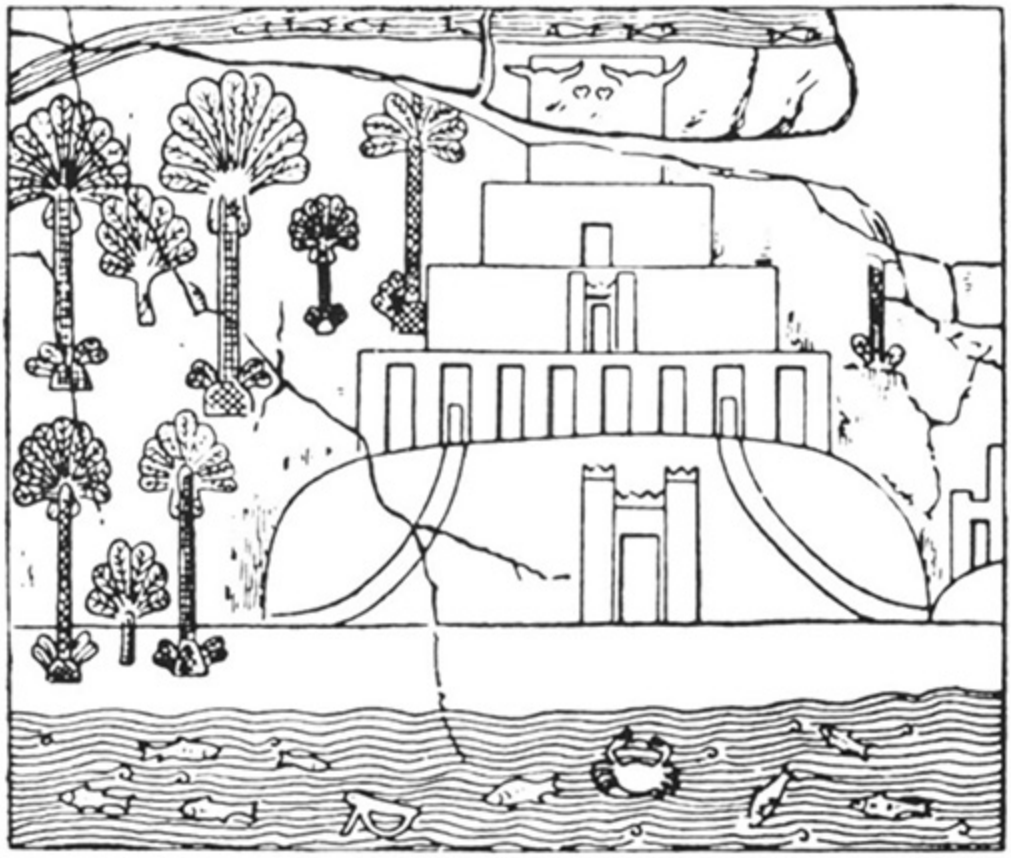
As a result of his experience as an excavator at Uruk, Lenzen does not consider the ziggurats to be towers. Instead he speaks of them as "high terraces" or "stepped terraces" (pp. 51-55). He had tunneled into the Anu ziggurat of Uruk from all four sides and had discovered signs in the archaic levels that earlier buildings had already been covered over before Urnammu raised his fourteen-meter-high ziggurat above them (pl. 10).

Ziggurat and sacrifice

The significance of the ziggurat is closely bound up with ritual sacrifices. In the Jemdet Nasr period, long before ziggurats were built, high altars were places of sacrifice. An early-third-millennium cylinder seal from Susa is the first known **218** representation of a thronelike sanctuary upon a raised terrace where a sacrifice is undeniably depicted. A bearded priest-king, ruler of Susa, shoots three men with arrows from his curved bow (Amiet, 1953, p. 28); they are prisoners who would be offered to the deity along with captured booty. Offerings also played an important part in Egyptian

religion, but there their greatest role was to provide nourishment for the dead or for the gods.

Royal statues — including those of Gudea — were not self-glorifications, like **114** statues of Roman emperors: they were personal intercessors who stood in the temple, within sight of the god, to plead for the king's longer life. The sacrifices so profusely offered in Mesopotamia were concerned with the welfare of the **245** living, not the dead. This was true even in the early periods. The most beautiful **right** vessels made in Al 'Ubaid times were libation vases — the so-called tortoise vases. Each was formed from two shallow dishes placed one over the other, with a long and elegant spout ending in a flattened disk that ensured a ceremonious outpouring of the liquid.

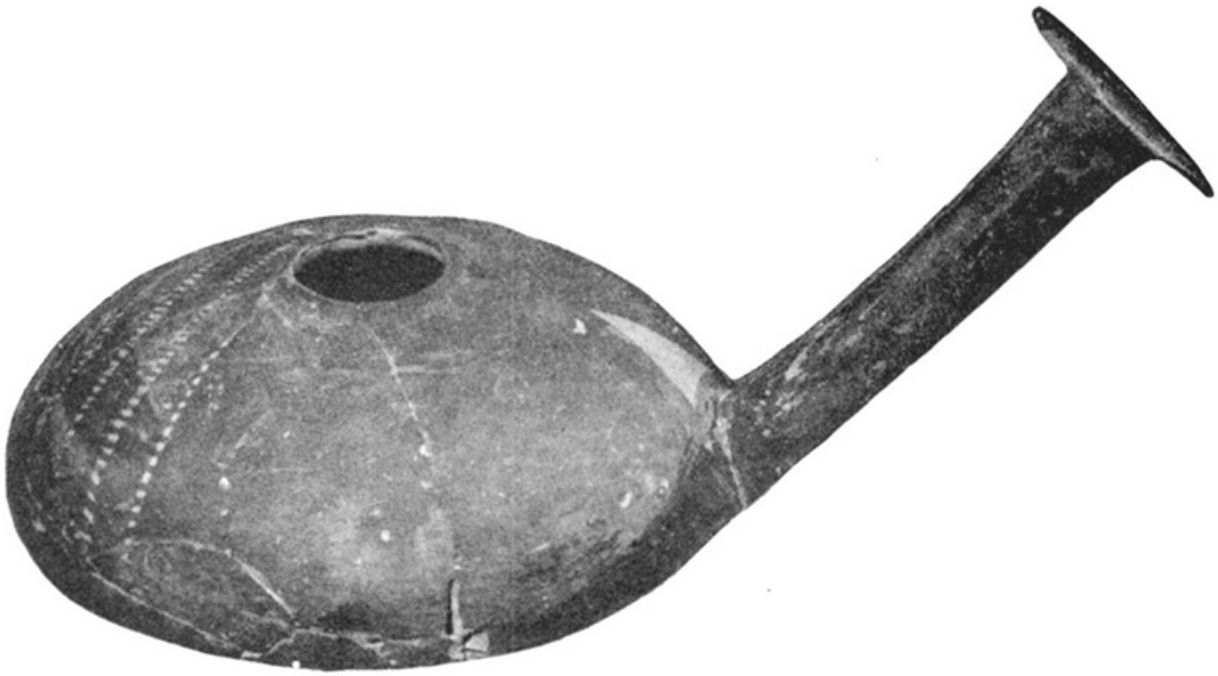


REPRESENTATION OF A ZIGGURAT: *Assyrian relief found at Nineveh. Seventh century* B.C. *From Parrot*

Drink offerings appear again and again on seals and reliefs. On a limestone **right** plaque from Ur naked priests pour libations before the

moon-god Nannar and onto an altar. The great temple complexes offer many indications of the unusual significance of sacrifices and offerings in Sumer. They include burnt offerings — for the prolongation of earthly life, not for the benefit of those already in the nether world.

In Uruk no sign of a temple was found in the archaic strata around the Anu ziggurat: “Instead, another remarkable phenomenon appeared. In this early Jemdet Nasr period, places of sacrifice appeared in three locations which were connected to one another by long tracts" (Lenzen, 1.942, p. 12). These places of sacrifice were examined and recorded in stratum after stratum (pls. 4-9). They were ranged one after the other, in the form of long troughs. Later these were grouped within a series of rectangular cells in which the burnt offerings were made. They were so numerous that the whole place looks almost like a slaughter yard. At Ur, chambers full of wood ash were found in the court of the ziggurat. At first these were taken to be “temple kitchens." Since then opinion has inclined to the belief that they were the sites of burnt offerings. This sacrificial impulse is also expressed in the form of the ziggurat. It soars up against the sky line, a gigantic sacrificial altar. It is by no means certain that temples stood upon each of the terraces. Lenzen, for example, found no traces of them in so sacred a site as the Anu ziggurat in Uruk.



LIBATION VASE FROM ERIDU: *These "tortoise" vases are among the finest ceramics of the period. Small white dots are painted upon them, and, above the spout, a white triangle — a fertility symbol going back to the oldest prehistoric traditions. Al ' Ubaid period, fourth millennium*

LIMESTONE PLAQUE FROM UR *with central perforation: Used as a stand for a votive object. Upper register: a naked priest pours a libation before the seated moon-god Nannar. Lower register: a naked priest pours a libation onto an altar before a temple or ziggurat*

The ziggurat is depicted as a high altar in a frequently reproduced Assyrian **242** relief from the seventh century B.C., part of which is in the British Museum and part in the Louvre. It represents a near-classic form of ziggurat with four steps. The topmost step has a pair of horns at each of its four corners. "This latter detail is of the greatest importance, for not only does it confer an undeniably religious character upon the monument, but in fact likens it to a giant altar. It is known that altars were actually provided at the four corners with horns, one of the uses of which was to assure complete sanctuary to any who laid hold on them" (Parrot, 1953; tr. 1955, pp. 33-34). And Dhorme remarks: "In this last detail . . . the ziggurat comes near to the horned altars whose function we know not only in Israel but also in Mycenae and Crete. Thus the ziggurat could be considered as a high

place where sacrifices might, from time to time, be performed" (1949, p. 179).

No accounts exist of the rituals from the Sumerian period to the end of Mesopotamian history. It is only from a Seleucid text (Uruk) that we can gain some insight into the conduct of a sacrifice upon a ziggurat. The text, which deals with the Anu ziggurat in Uruk and is translated by Falkenstein, states: "In the first night watch, on the roof of the high temple of the ziggurat . . . when (the star of) the great Anu of heaven comes out," a feast was laid out upon a golden table for Anu and Antum (his wife) as well as for the seven planets, and most exact instructions were given for this entertainment of the god of the ziggurat: the flesh of cattle, sheep, and birds, beer of the first quality, and "outpressed wine poured from a golden ewer," as well as every kind of fruit, also honey and aromatic spices, "spread on the seven golden incense burners." How far this account is also true for the earlier period is unfortunately not known (1941, p. 29).

Mesopotamian rituals endured for long periods, and it is unlikely that new rites would be invented in the last throes of a declining culture. Parrot has thus assumed, with full justification, that the Seleucid rituals "are almost certainly connected with beliefs of immensely greater antiquity" (1953; tr. 1955, p. 62).

Slowly attention has been drawn to the symbolic meaning of the ziggurat. Falkenstein, who deciphered the earliest clay tablets from Uruk, believes no too narrow or too simple explanation should be accepted, since "we still have far too little information on the cult significance of the ziggurats" (1941, p. 28).

The names borne by different ziggurats — "House of the Mountain, Mountain of the Storm, Bond between Heaven and Earth" (Frankfort, 1954, p.6) — imply that they created a link between heaven and earth.

During the Assyrian and Babylonian empires, their relation with cosmic symbolism came to the fore. The seven terraces of Etemenanki, each of a different color, were supposed to relate to the spheres of the seven planets. But these possible astrological indications have, in fact, little connection with the original significance of the ziggurat.

Frankfort relates the idea of the ziggurat with the idea of the sacred "mountain" which, wherever it arose, betokened the center of the world. "The significanco of the ziggurat was symbolical, and the symbolism could be expressed in more than one way. The same idea, which was

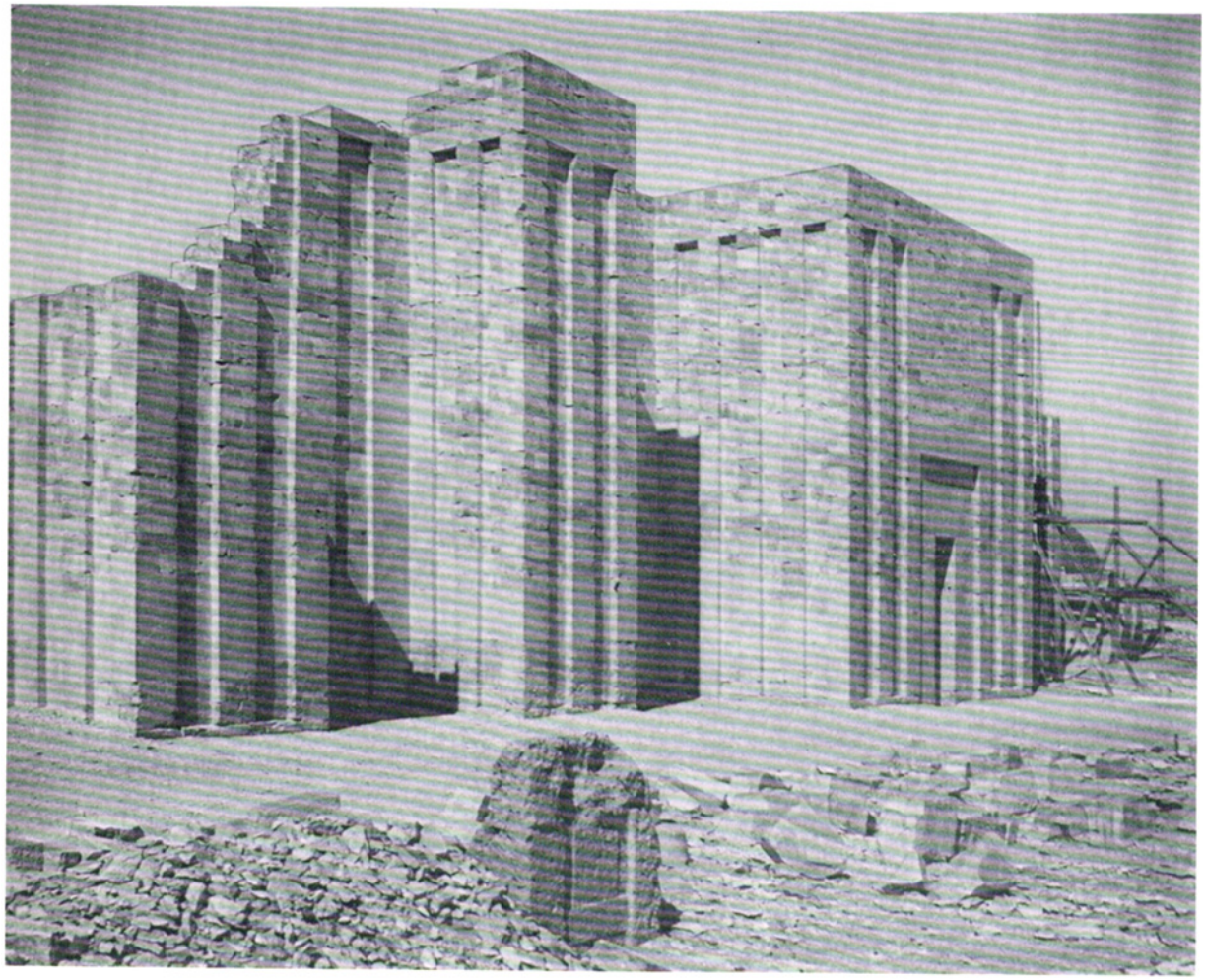
unequivocally expressed in a high artificial mountain, could also be rendered by a mere platform a few feet high," and the earliest temple platforms "already represented the sacred 'mountain' " (ibid., p. 7).

VOTIVE BRONZE: *Modeled offering scene before a ziggurat. From Elam*

To take a stand upon one single meaning of the ziggurat is to be quite out of tune with the mentality of the period. A number of ideas are woven into the phenomenon: the rock as the first thing to emerge from primeval chaos; the mountain, which, wherever it arose, represented the center of the universe; the earthly throne of the god; and — what seems to come closest to the Sumerian outlook on life — the ziggurat as a monumental site for the offering of sacrifices.

Just as most of the symbols of prehistory circled around the idea of fertility, most of the concepts of the Sumerian culture and its successors circled around the idea of sacrifice.

THE FIRST CAPITAL IN STONE: *Papyrus column from northern building of the Zoser complex. Saqqara (cf. p. 287)*



THE ONLY ENTRANCE *to the Zoser complex (cf. p. 278)*

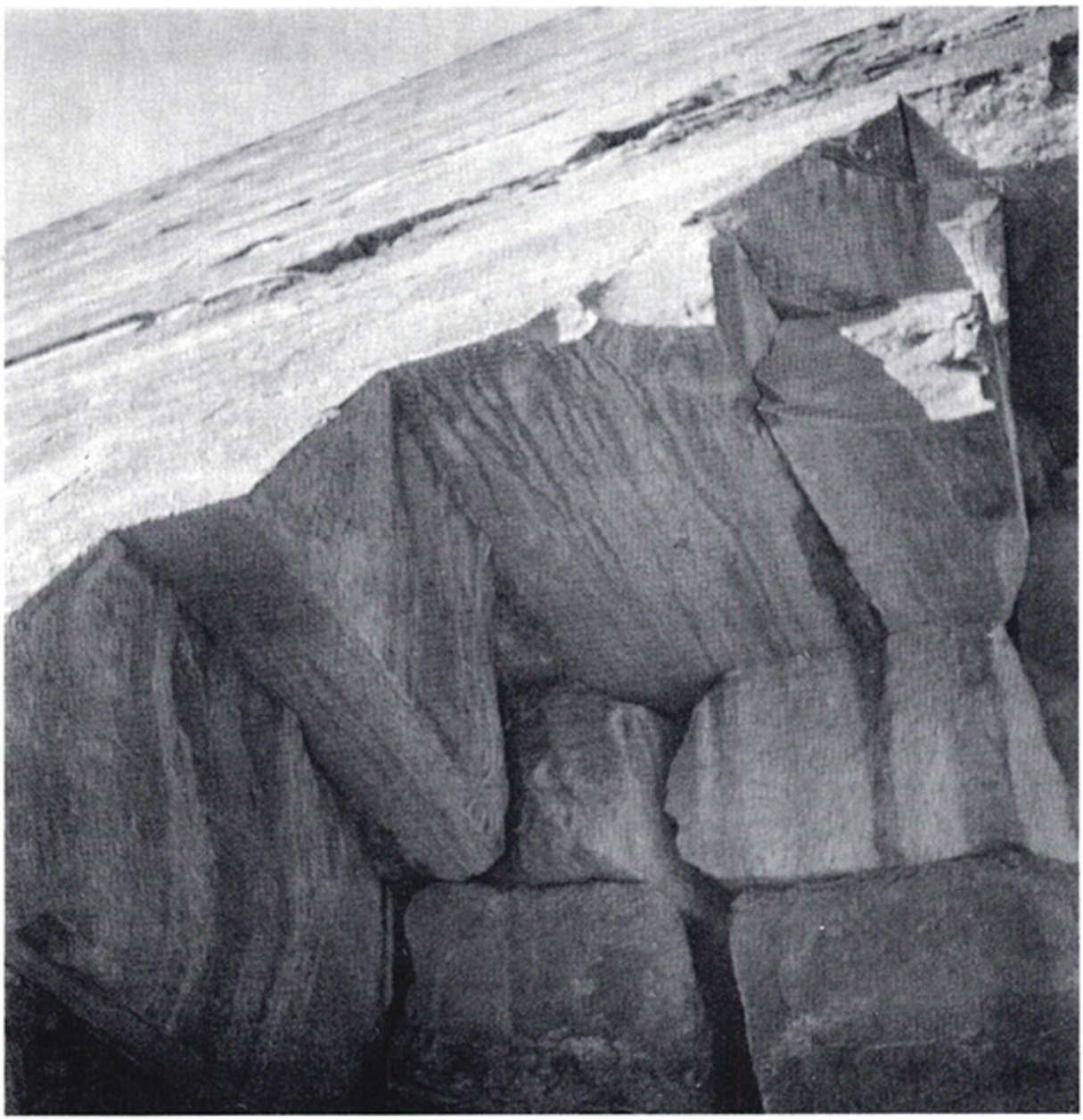
ENTRANCE TO THE ZOSER COMPLEX *seen from the processional passageway (cf p. 282*)

COLONNADED PROCESSIONAL HALL: *View toward the great court. Zoser complex (cf. p. 282*)

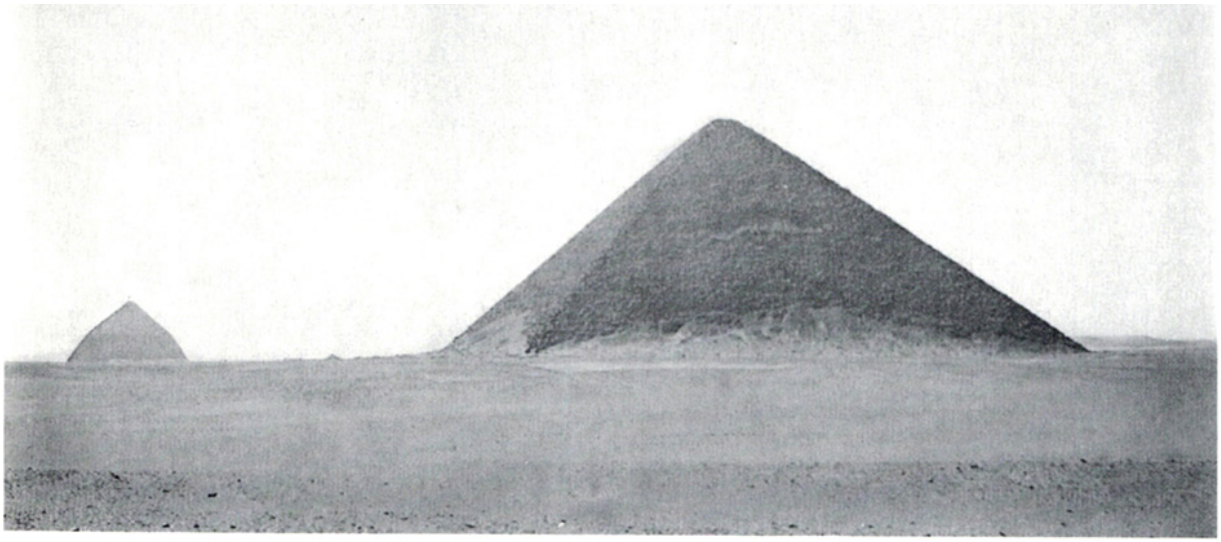
GREAT COURT *with Temple T in the foreground. Zoser complex (cf. p. 283)*

HEB-SED COURT *with its chapels. Zoser complex* (*cf. p. 284)*

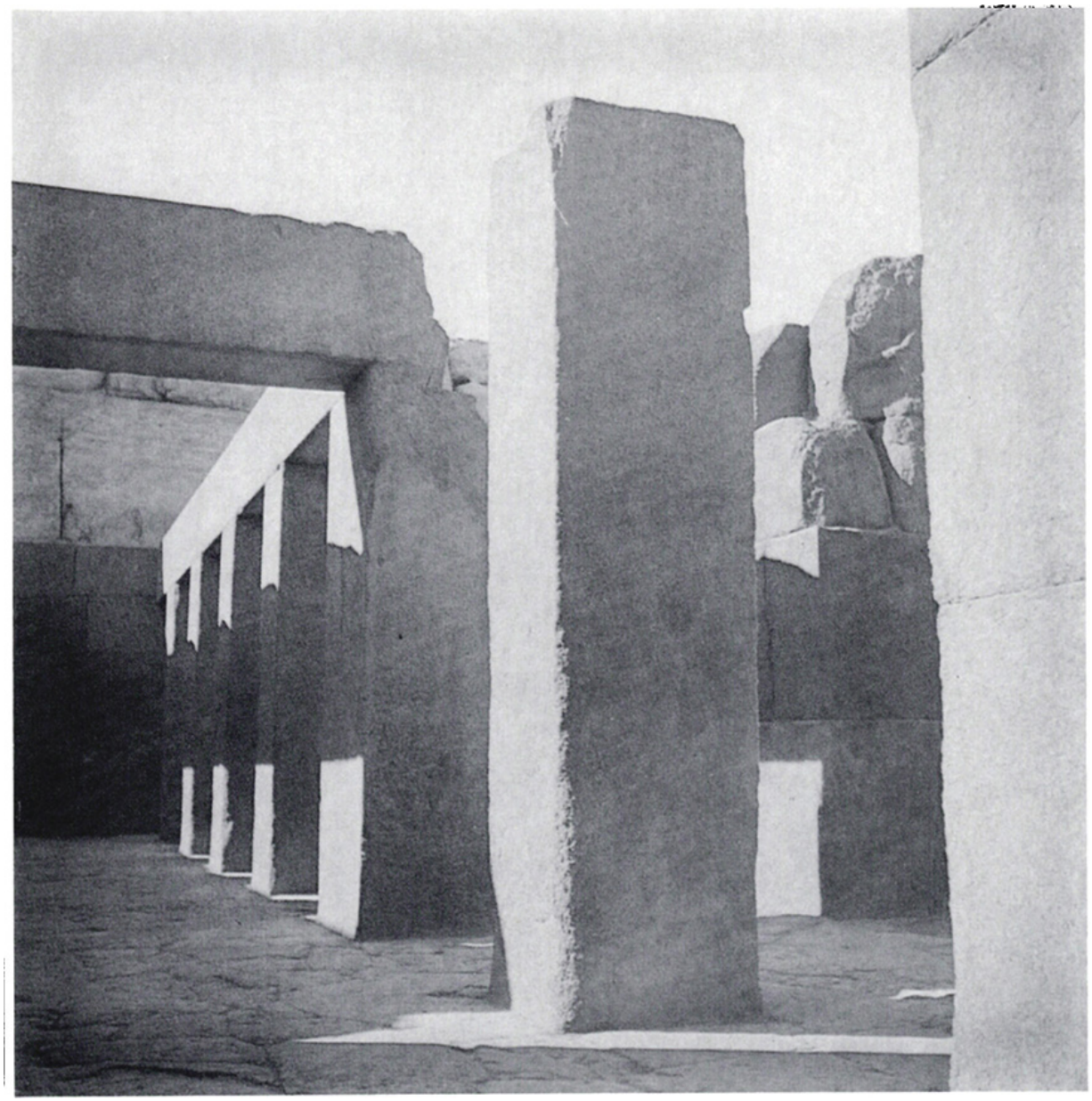
THE BENT PYRAMID OF SNEFERU. *Dahshur (cf. pp. 306,ff.)*



CASING OF THE BENT PYRAMID (*cf. p. 312)*

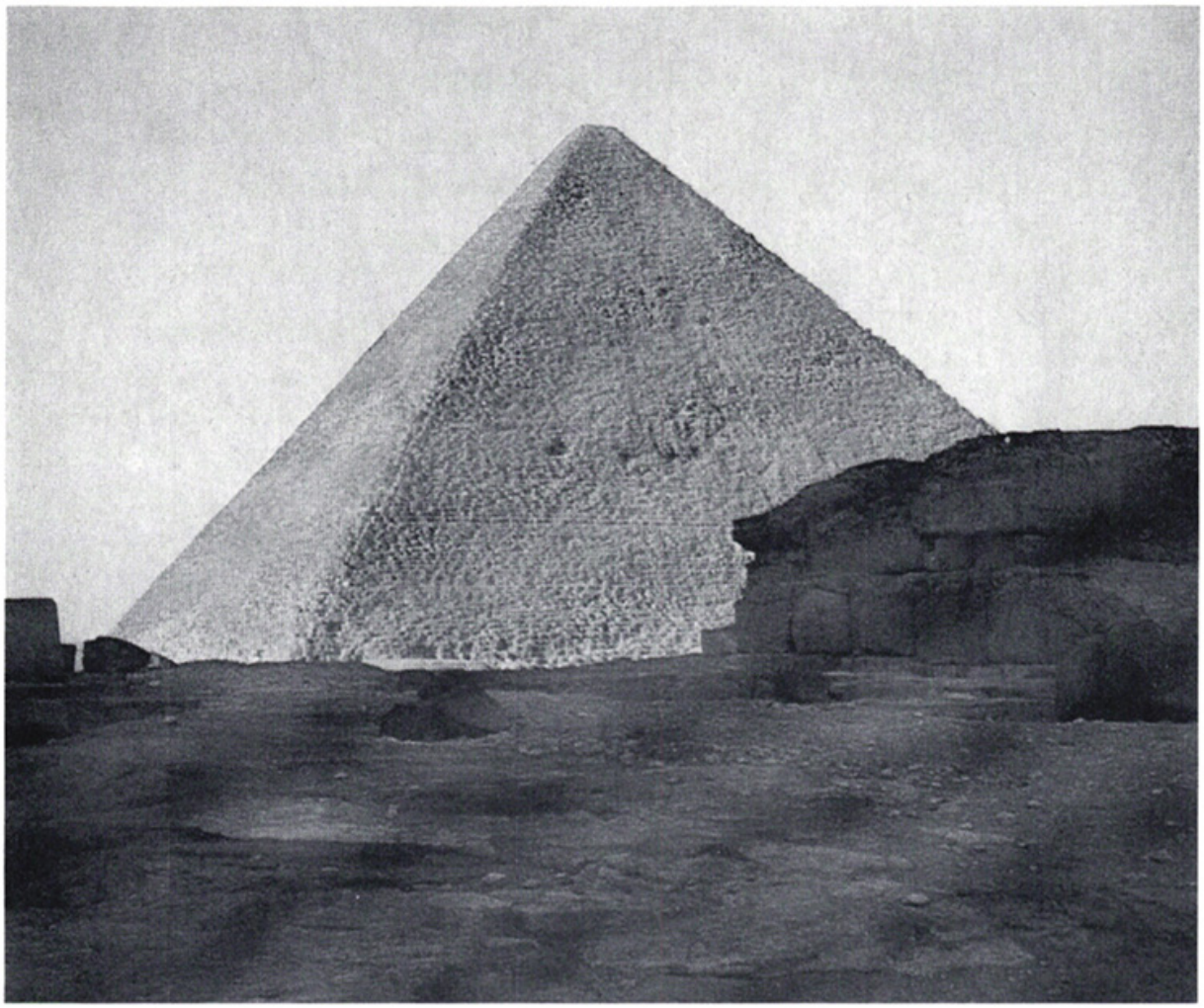


THE FIRST TRUE PYRAMID: *Sneferu's third pyramid; his bent pyramid in the background. Dahshur* (*cf. pp. 309, 311 f.*)



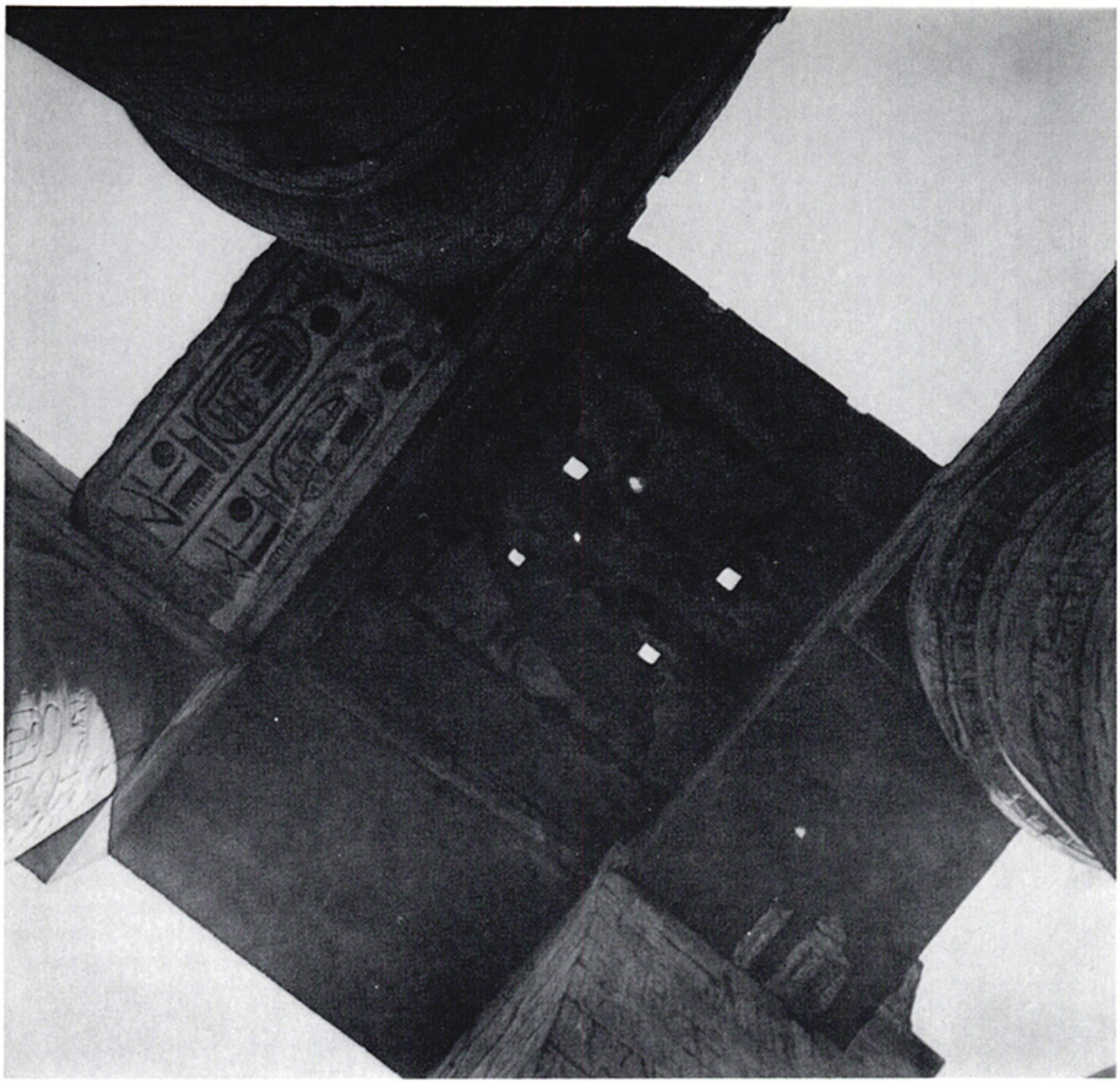
CHEPHREN'S VALLEY TEMPLE: *Interior view from the entrance. Giza* (*cf.pp. 325 f.*)

PYRAMID AT EVENING: *Chephren's pyramid, Giza (cf. p. 505}*

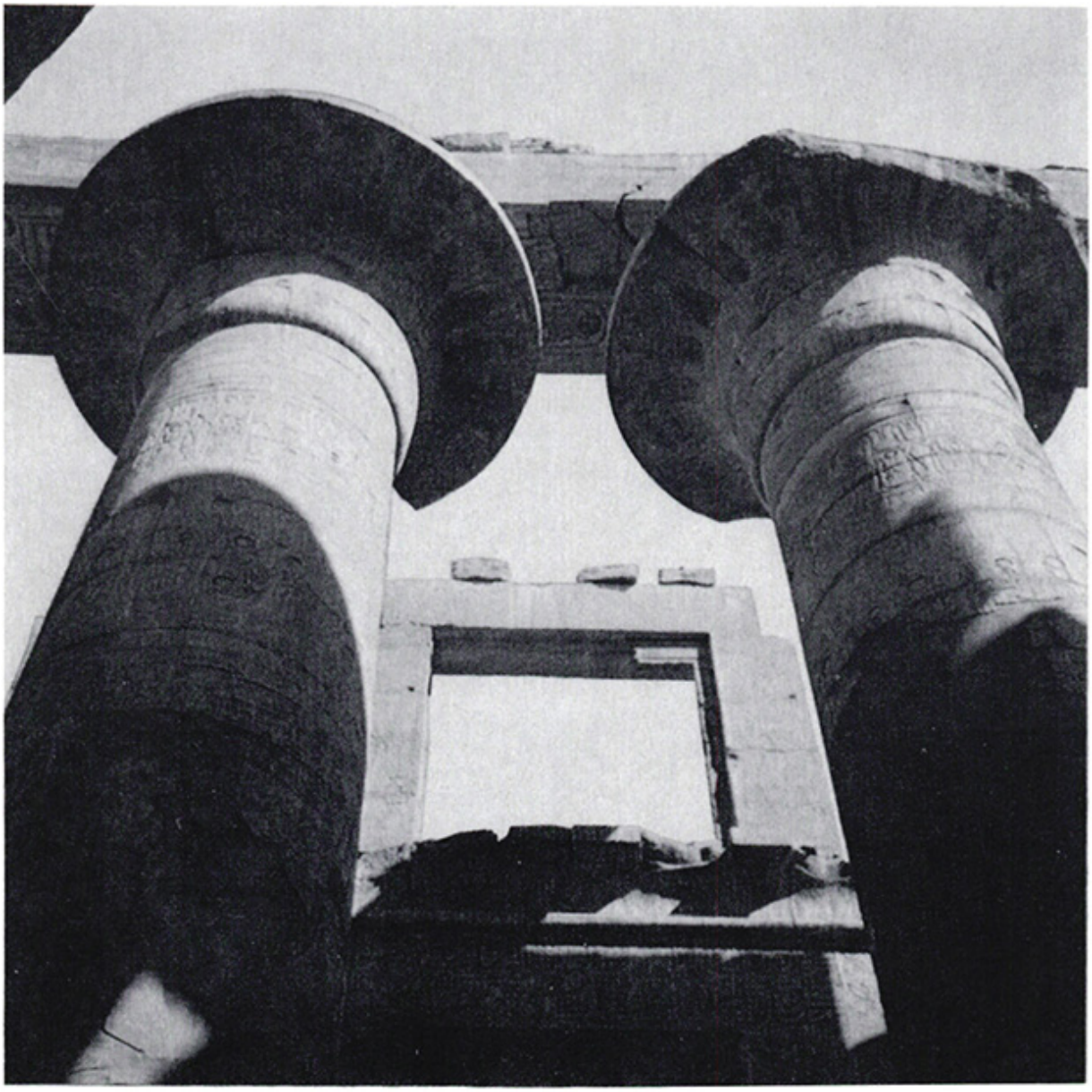


PYRAMID AT MIDDAY: *Cheops' pyramid, Giza* (*cf. p. 315*)

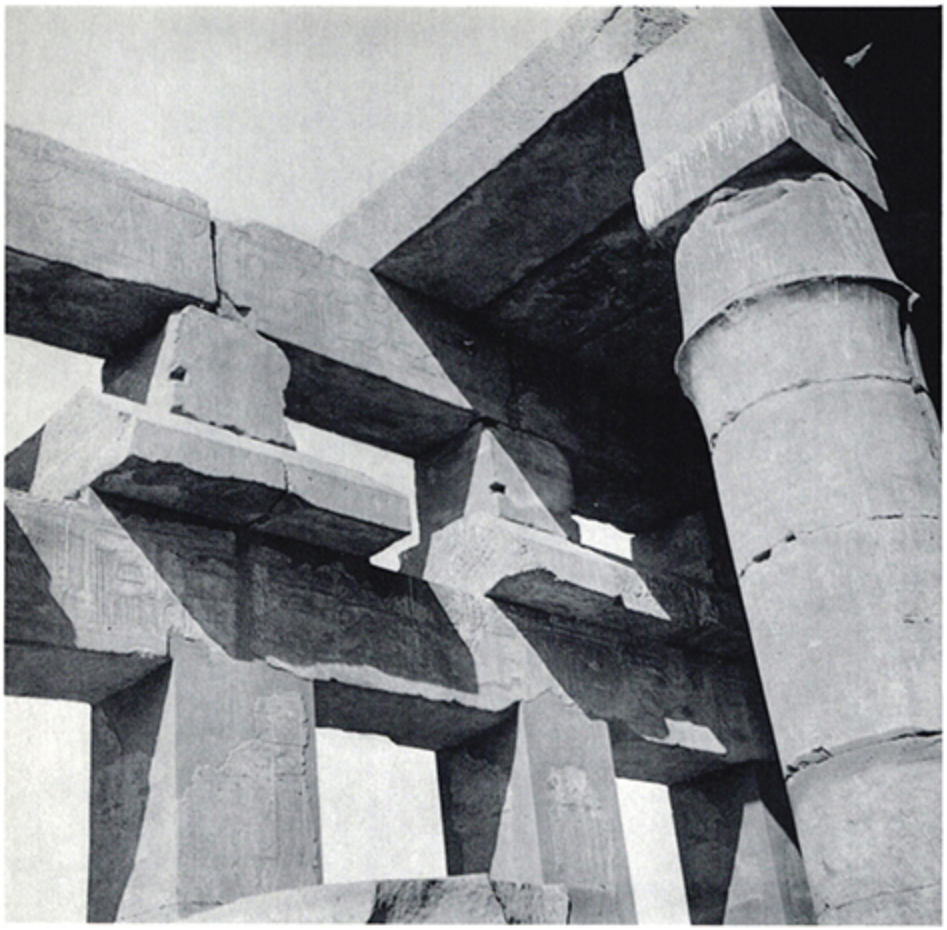
THE GREAT HYPOSTYLE HALL *seen from the west. Karnak (cf. p. 385)*



ROOF SLAB *with four small holes for letting in daylight. The great hypostyle hall, Karnak* (*cf. p. 391)*



WINDOW OF CLERESTORY *without its stone grille. The great hypostyle hall, Karnak* (*cf. p. 391)*



STRUCTURAL MEMBERS OF THE FESTIVAL HALL *of Tuthmosis III. Karnak (cf. p. 372*)

. VAULTING OF THE HATHOR CHAPEL *in Hatshepsut's temple. mortuary Deir el Bahari (cf. p. 427*)

I.HATSHEPSUT'S MORTUARY TEMPLE *with its terraces* (*cf. p. 425)*

PART VII BEGINNINGS OF STONE ARCHITECTURE AND THE KA: EGYPT

THE EGYPTIAN RELATION TO STONE

One of the greatest achievements of Egyptian civilization was to sever stone from the rock and to make of it a building material unsurpassed to this day. The choice of this unyielding material, which demanded great labor and high skill to give it the desired form, was directly based upon Egyptian religious convictions.

A longing for an eternal material was always present in the inner feelings of the Egyptians, and the use of stone went far back into their prehistory, i.e., the Predynastic period. Stone vessels —jars, bowls, vases of the hardest rock, such as basalt, porphyrite, and diorite — have been found in prehistoric graves and had already reached their highest perfection in the First Dynasty. In a queen's tomb at Saqqara, Emery found in 1955 three transparent dishes of rock crystal, six to eight inches across, one of them less than two millimeters thick (1956, fig. 7).

Stone, the least perishable material, was at first reserved for the dead. Its use was long denied the living. Its enduring qualities made it the ideal substance from which to build resting places for the dead, and it was the grave that gave birth to the first stone architecture. Its early development was a long process, continuing throughout the early dynasties. Then, like a bolt from the blue, a radiant stone architecture suddenly appears full-fledged, at the beginning of the Third Dynasty, in Zoser's mortuary complex at Saqqara.

Preludes in clay: the mastabas of north Saqqara

Saqqara lies a short hour's drive south of Cairo. At no other place in Egypt, throughout the millenniums, have so many dead found their resting place as here in the immediate vicinity of the ancient capital, Memphis. That city long ago vanished beneath cultivated fields. Of its appearance, its temples and palaces, even its extent, only the vaguest notions exist. The unburned bricks of which it was built have crumbled into dust.

All that remains is the necropolis on the desert rim: Saqqara. Everywhere, one is aware of the millenniums. Potsherds from every dynasty lie on the crests of wavelike dunes, many as yet unexcavated. One comes across human bones, whitened and reduced to a brittle shell, that crumble like incandescent lamp filaments when picked up. Dominating the view of the rugged desert plateau to the south is the silhouette of the step pyramid of King Zoser. It marked the dawn of the pyramid age. At the far end of the necropolis, in north Saqqara, there is a long row of great mastabas of First Dynasty kings or high officials.

Reisner opens his monumental *Development of the Egyptian Tomb Down to the Accession of Cheops* by pointing out that from its very beginning the Egyptian tomb had a twofold function: it was both a burial place and an offering place (1936, p. 1).

Up to the Late Predynastic period, Egyptian tombs were simply shallow circular or oval holes or pits, in which the dead were buried in a contracted position, just as they had been during the long prehistoric ages. “Side by side with these open-pit graves, in the same cemetery . . . occurs the earliest improved type of Egyptian grave, the open pit lined with c.b. [clay brick] and roofed with wood and c.b.“ (p. 5). Then, like the houses, these graves gradually became rectangular. They also became deeper, larger, and subdivided, until quite an elaborate substructure had come into being.

To this substructure under the earth was added a superstructure above the earth. Its form differed in Upper and Lower Egypt. Herbert Ricke explains this difference as an outcome of two different ways of life. In the fertile delta area of the north (Lower Egypt), the early farmers lived in small settlements (Faiyum, Merimdeh). Their dead were buried beneath the floors of the dwellings, or their tombs were modeled after the houses of the living. In the south (Upper Egypt), lived wandering herdsmen who buried their dead in the gravel, building above them a small cairn or tumulus.

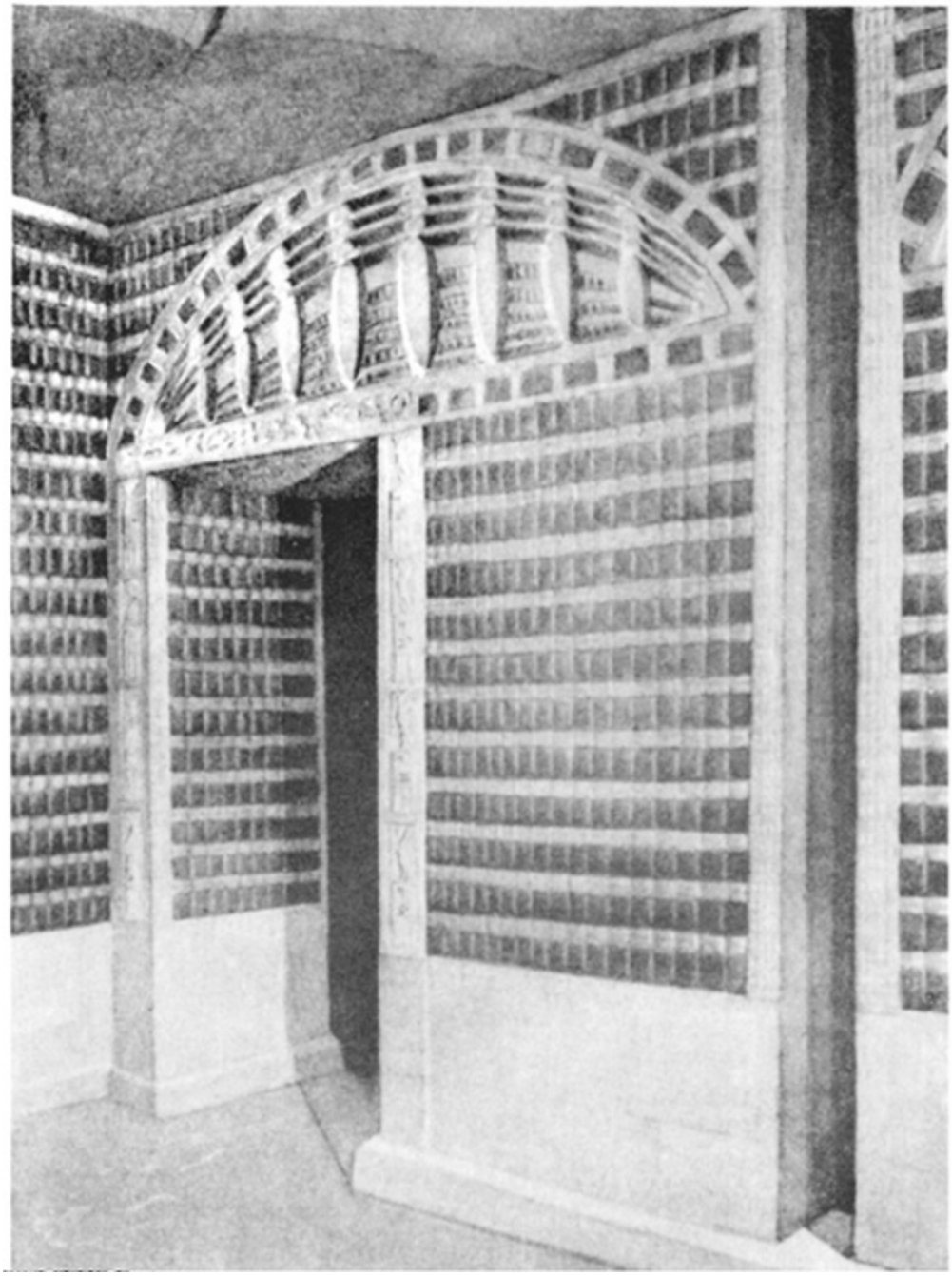
W. S. Smith comments on this contrast “drawn between the nomads of the south, with their tentlike dwellings and grave mounds, and the settled inhabitants of the north, who built in brick and copied their houses for their tombs. This does not seem to allow sufficiently for the possibilities of development in the villages and towns of the agricultural communities, which must long have outnumbered any nomad elements up and down the Nile Valley” (1958, p. 24). But throughout Egyptian history, earliest habits

are ineradicable, and there seems little doubt that in essence Ricke's hypothesis is closely related to the Egyptian habit of mind.

The superstructure in the north gradually acquired a low, flat-topped form with sloping, paneled walls: the mastaba (Arabic for "bench").

The introduction of stone as a building material can be followed in the tombs of the First and Second Dynasty necropolises of Abydos, Helwan, Saqqara.

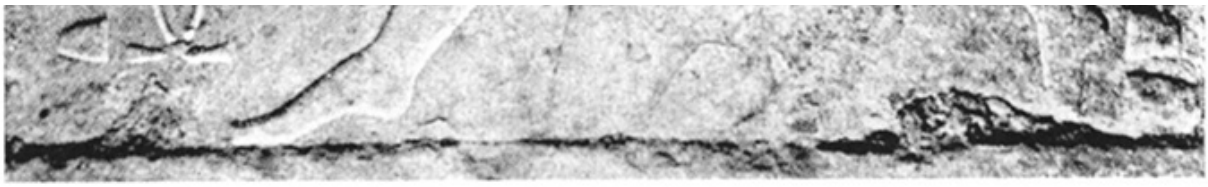
Among more than a thousand graves in the cemetery of Helwan were some in which the wooden posts and walls of sun-dried brick had been partially replaced by stone slabs. Helwan had no royal graves. It was a cemetery for lesser people.



WALL IN ZOSER'S SUBTERRANEAN CHAMBER: *The blue faïence tiles are designed to imitate reed matting. The hieroglyphic djeds in the shallow arch symbolize eternal duration. Saqqara. From Firth and Quibell*

In a mastaba on the escarpment of north Saqqara, heavy stone portcullis **270** blocks were found at the foot of the descending passage, protecting the dead from intruders. There were two portcullises, one behind the other.

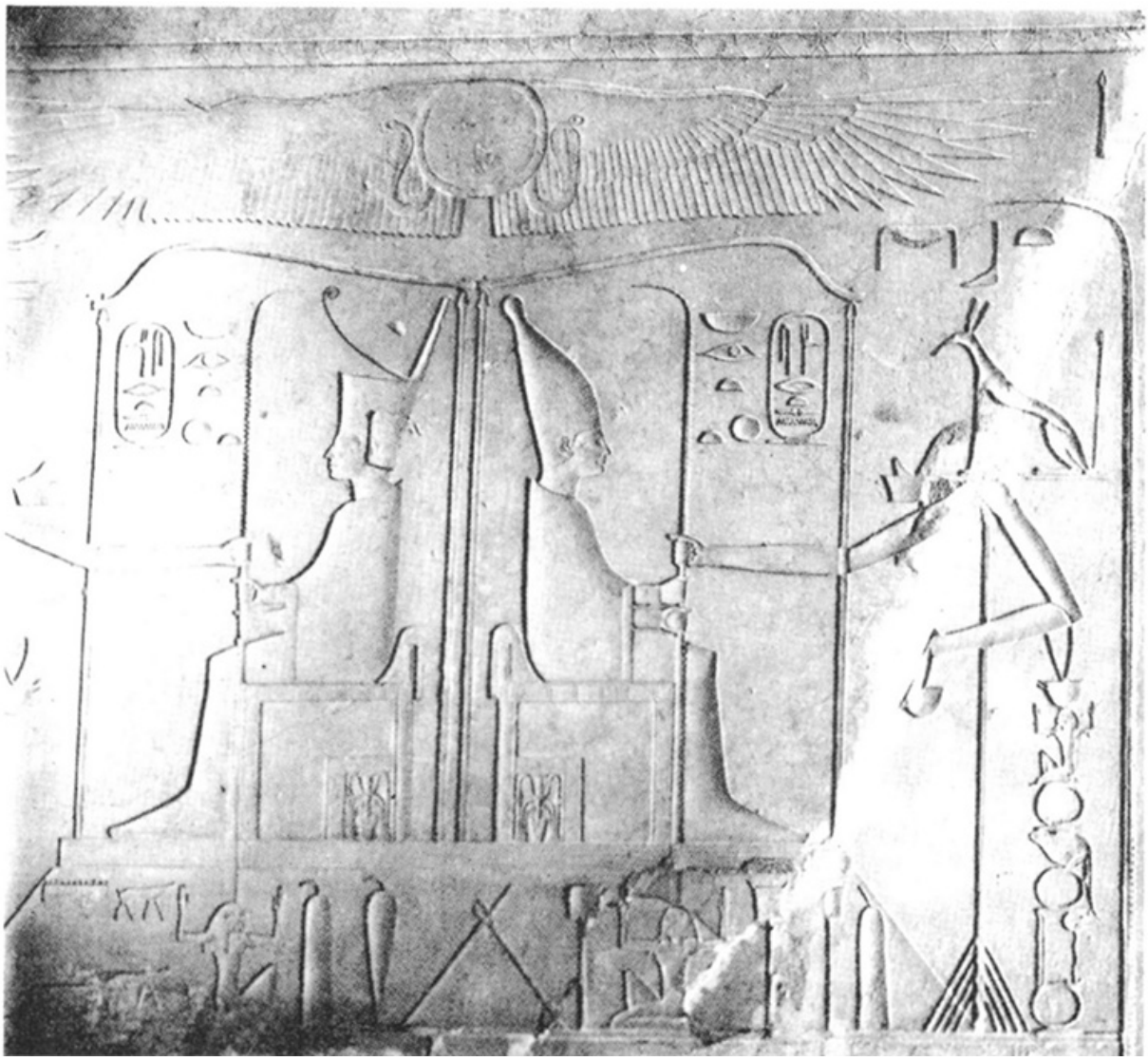
The great mastabas of the kings of the First Dynasty were uncovered on the opposite side of the Nile, at Saqqara, by Emery, starting in 1935. (There had been earlier excavations, but circumstances did not permit them to be completed.) The mastabas lie at the northern limit of this huge necropolis, which stretched south even beyond the pyramid and mortuary complex of King Zoser. Emery's careful and meticulous classifications have given us new insight into the different periods of the First Dynasty. Many gaps have been filled and many questions answered. Many others still remain to be solved.



RELIEF IN ZOSER'S SUBTERRANEAN CHAMBER: *King Zoser running his ceremonial race. Saqqara. From Lange and Hirmer*

The proud row of royal graves provided an unexpected view of the early development of the mastaba. Emery's three volumes, richly illustrated with excellent axonometric drawings, present a wealth of information that we shall only summarize here.

The type of the mastaba always remained the same, but the tomb became progressively larger and more elaborate. The superstructure was built of sundried **272** bricks, with panels and buttresses in the form known as a palace façade. In Tomb 3503 this was faced "with mud plaster covered with a white gypsum



RELIEF OF HEB-SED FESTIVAL *of King Sesostris III on lintel: A high point of the festival was the new coronation of the king on the thrones of Upper Egypt (right) and Lower Egypt (left). Middle Kingdom* stucco" (1954, II, p. 129). These white buttressed niches were an embryonic form of the huge limestone enclosure wall with which King Zoser surrounded **248 col, 274** his mortuary precinct.

The outer walls that encircled the mastabas were plain — devoid of articulation. ***272*** Outside them lay subsidiary burials of servants sacrificed to serve the king **271** in his afterlife. The grave of Queen Meryet-nit (Tomb 3503) was surrounded by twenty-two subsidiary burials. "This barbaric custom did not survive in the burial customs of the Second Dynasty" (1958, III, p. 98). Barbaric as it was, it was never carried out on the scale of the death-pit of Queen Shubad at Ur some centuries later. Beyond these burials, in several instances, remnants were found **272** of a solar bark.

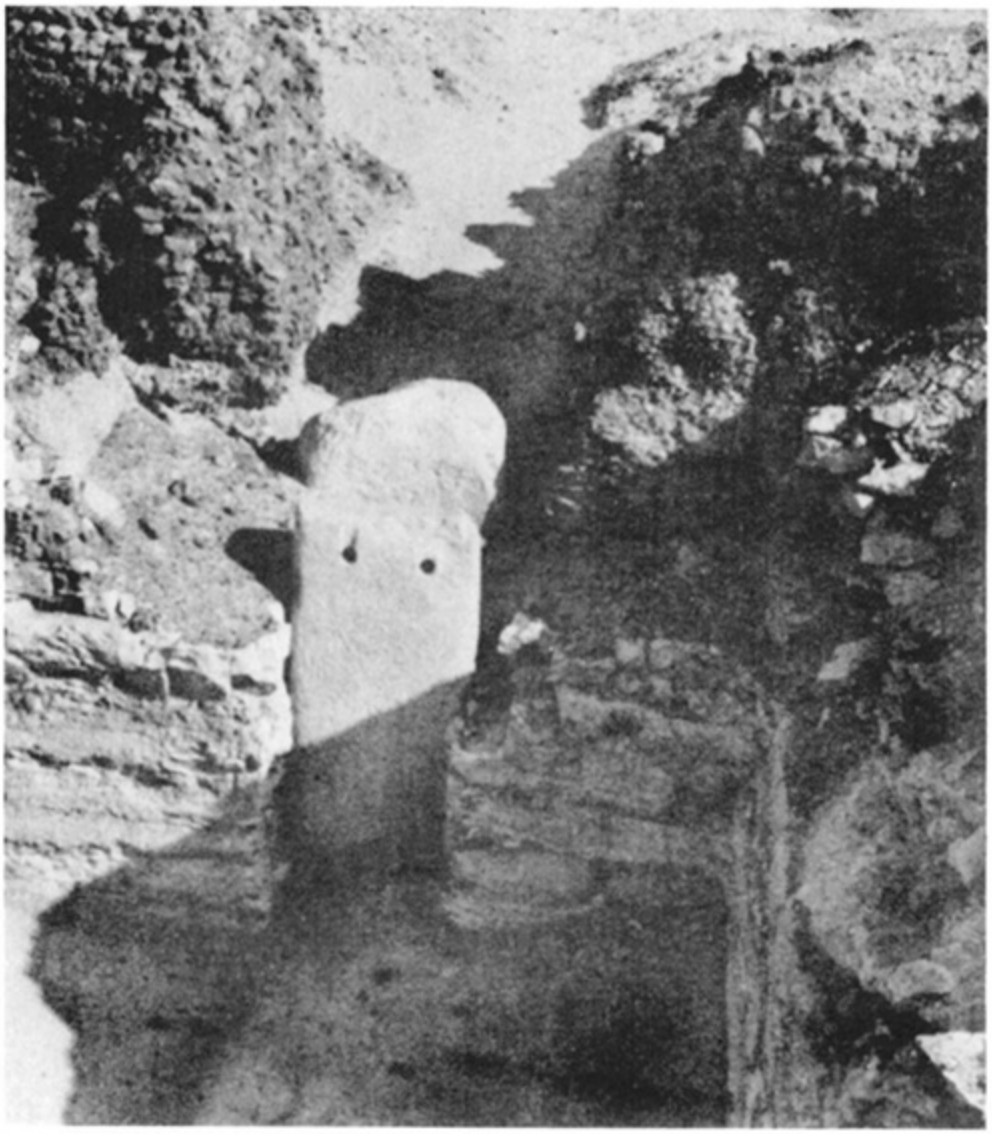
The substructure was increasingly subdivided, finally including nearly fifty chambers and magazines — a custom still preserved in the subterranean quarters of Zoser's tombs. A photograph of a mastaba from the reign of Wedymu (Tomb **273** 3506) shows the central rock-cut pit of the substructure and a stone doorway at the foot of a flight of stairs descending from ground level to the pit. The buttressed inner walls of the superstructure are also apparent.

Though their inner structure changed, these mastabas never altered their general form. But one of the inexplicable leaps of the human imagination occurred at the beginning of the Third Dynasty, when the great genius of Imhotep inspired him to raise a large vertical structure and to use stone as the building material.

Imhotep the builder

A half-mythical yet historic figure hovers over the birth of stone architecture: Imhotep. Two millenniums after his death, he was raised to the stature of a god of healing. While he was alive, Zoser entrusted to him the highest office of the land. He was grand vizier, also " 'chief judge,' 'overseer of the King's records,' 'bearer of the royal seal,' 'chief of all works of the King,' 'supervisor of that which Heaven brings, the Earth creates and the Nile brings,' 'supervisor of everything in this entire land' " (Hurry, 1928, pp. 6-7). Imhotep's universality, scarcely conceivable for later periods, could only occur in the early stages of a high civilization, when everything had first to be invented, then organized.

Though his existence had not been doubted, the first direct proof of it from his own period came to light in 1925-26, when the Zoser complex was slowly freed from sand and rubble. Near the step pyramid, Firth discovered remnants of a statue of King Zoser on the base of which beautifully executed hieroglyphs give a direct account of Imhotep's existence. "This begins with a series of titles, followed by the name of their holder, one Imhotep . . . The Chancellor of the King of Lower Egypt, Chief under the King (of Upper Egypt?), Administrator of the Great Mansion, Hereditary Noble, Heliopolitan High Priest, Imhotep" (Gunn, 1926, p. 192).



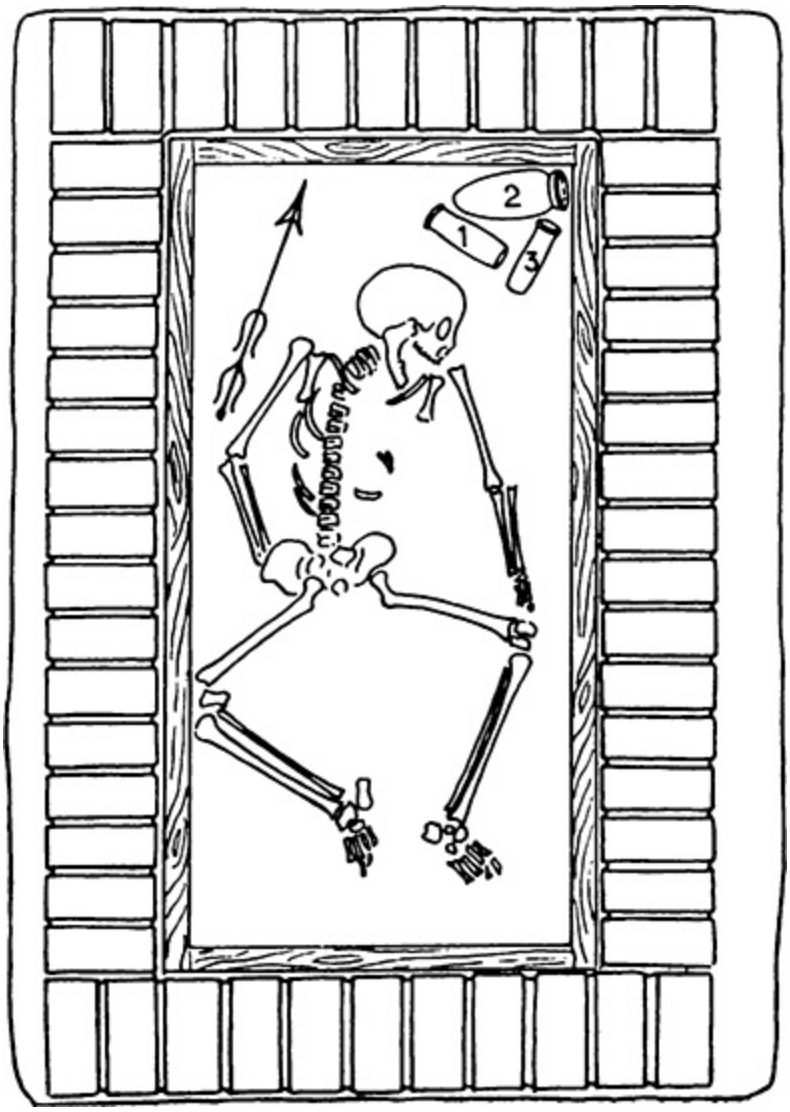
STONE PORTCULLISES *at entrance to mastaba tomb: Two heavy granite portcullises at the foot of the stairway leading from ground level guard the entrance to the substructure of Tomb 3500 in north Saqqara. First Dynasty*

This points up Imhotep's rare combination of powers as organizer, statesman, and creative spirit. In addition, as the inscription states, he was high priest of Heliopolis. We do not know whether the title of high priest existed before the Third Dynasty, but the first recorded mention "so far known seems to be that on the famous fragment of the statue of Djoser from the Step Pyramid" (Baumgartel, 1955, p. 8).

Priestcraft, magical healing, and medicine were closely interrelated in ancient Egypt; all three contained the same basic elements. This is a relic of

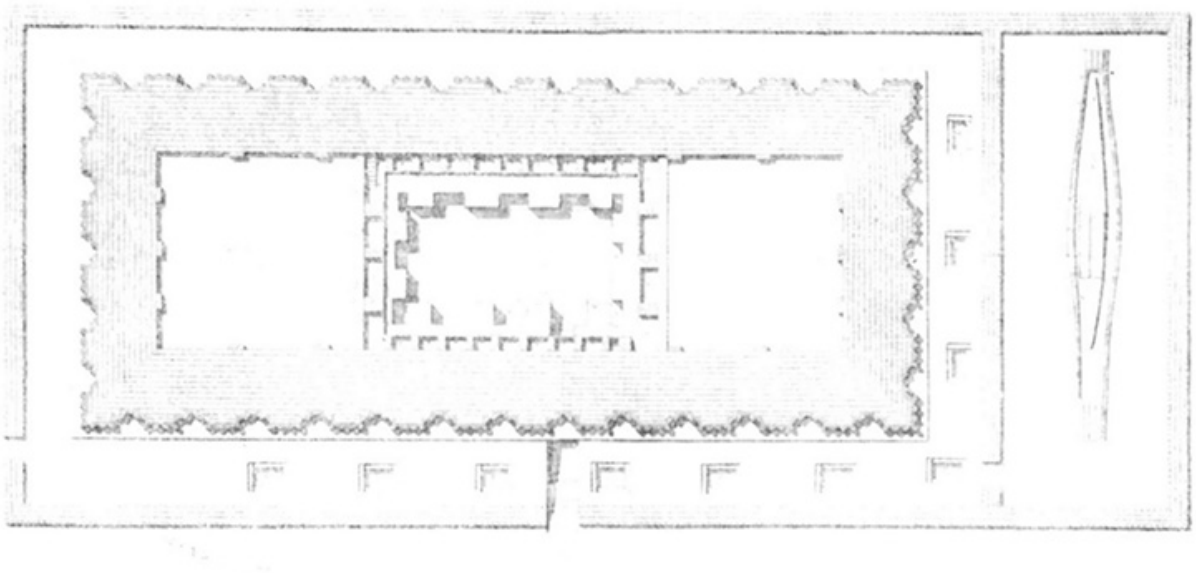
prehistoric culture.

MODELED WALLS OF A MASTABA: *The superstructure of the tomb is bounded by carefully molded and recessed brick paneling like that developed in Mesopotamia. Tomb 3503, north Saqqara, First Dynasty*



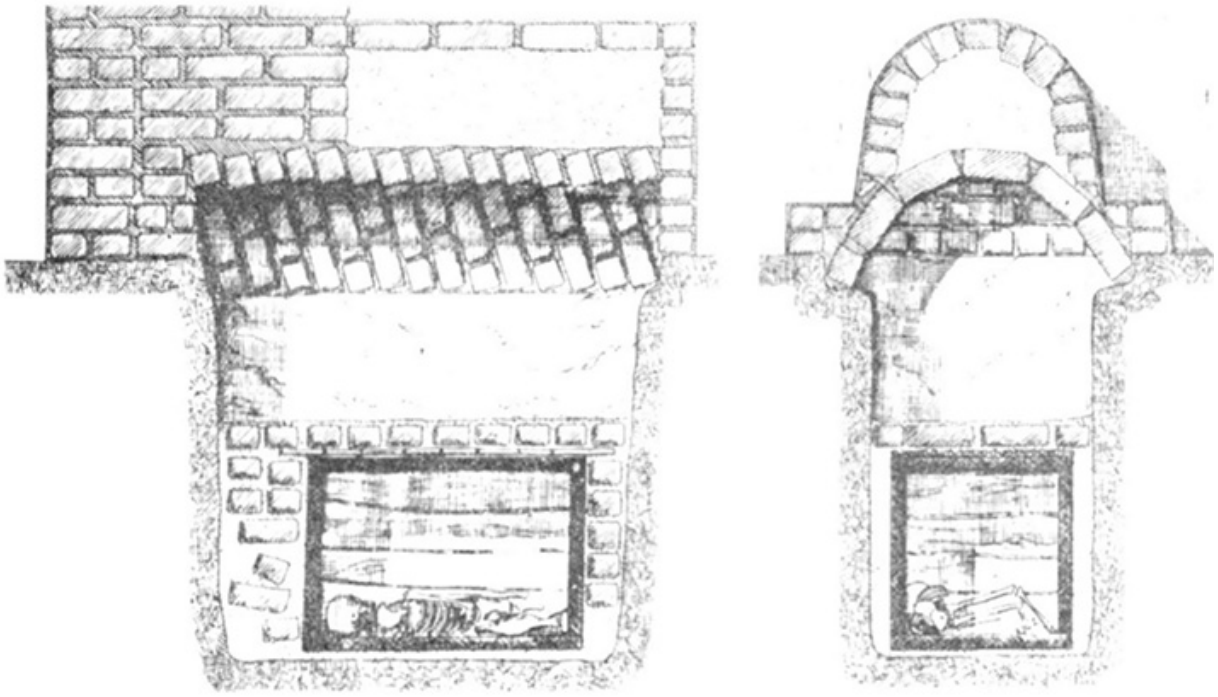
SUBSIDIARY BURIAL *with sacrificed retainer: Tomb 3506, north Saqqara. First Dynasty. From Emery*

MASTABA AND SUBSIDIARY GRAVES: *View of the modeled foreground walls of Tomb 3506 (65x25 m.), showing subsidiary graves in the*



GROUND PLAN OF MASTABA: *Ground plan of Tomb 3506 with ten subsidiary tombs and a boat grave all within the same walled enclosure. The descending central stairs lead to a stone doorway. From Emery*

SUBSTRUCTURE OF MASTABA: *The stone doorposts and lintel of Tomb 3506 from within the substructure*



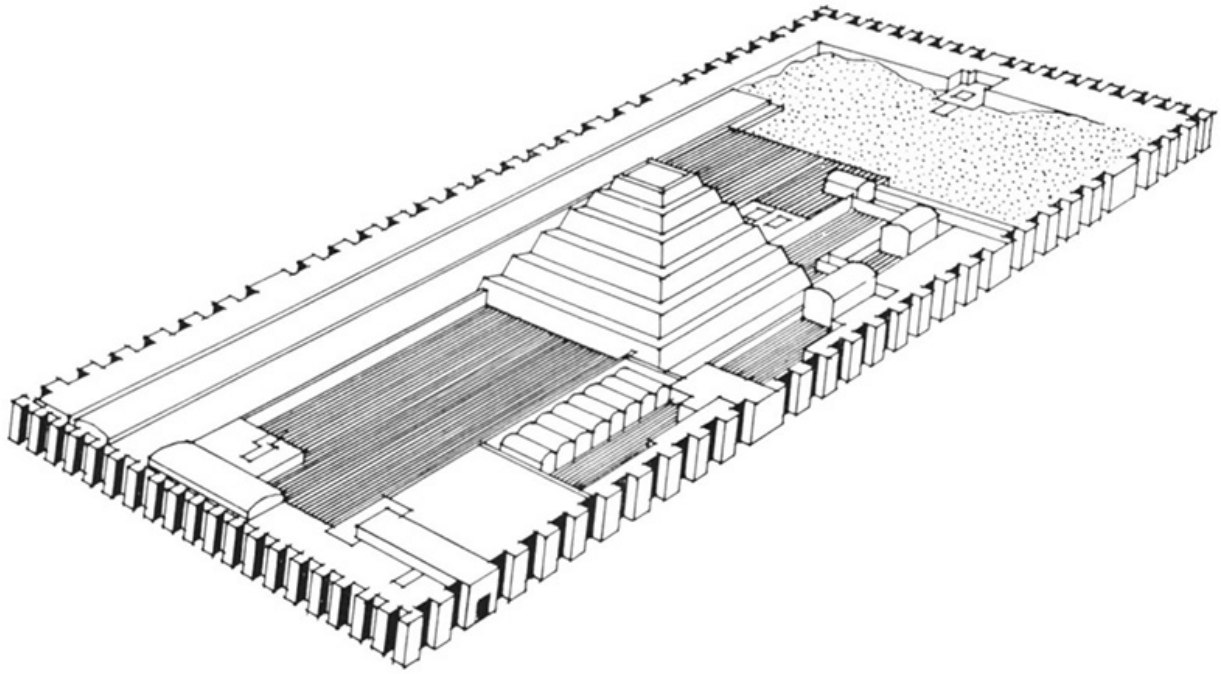
SECTIONS OF VAULTED SUBSIDIARY GRAVE: *Drawings of one of the subsidiary graves of Tomb 3500. From Emery*

The Greeks made demigods of warrior heroes, the Egyptians of men of wisdom. Imhotep's reputation as a magical healer was far greater and more enduring than his reputation as organizer, statesman, or architect. In the Old Kingdom, not long after his death, he was revered as a demigod of magical healing and medicine. Statuettes of him in many museums show him without the insignia of a god: "The demigod stage appears to have lasted from the reign of Mycerinus until the beginning of the Persian period" (Hurry, 1928, p. 56) — more than two millenniums. Finally, in the late Saite period, when there was a renaissance of Old Kingdom cults and arts, Imhotep was raised to the rank of god of medicine, or, more accurately, of the magical arts of healing. As such, he was one of a triad that included Ptah, the Memphite god of creation, and Ptah's lioness-headed wife Sekhmet, a fertility-goddess.

Imhotep's title as god of medicine must be employed with care, for, as Maspero cautioned long ago, "it is in virtue of his powers as a magician that Imhotep was deified" (Hurry, 1928, pp. 69-70, quoting Maspero) — in virtue, that is, of his art of magic as therapy.

Our only tangible record of Imhotep is his architecture. A tradition as longlived as that of his powers of magical healing credits him as architect of

Zoser's mortuary complex. First confirmation of it was the inscription found by Firth. Second is an inscription found in the Wady Hammamat, a valley on the caravan route from Coptos to the Red Sea, which lists twenty-five generations of architects, going back to Imhotep, the son of Kanofer, " 'chief of works of the South- and of the Northland' " (ibid., p. 193).



DRAWING OF ZOSER COMPLEX AT SAQQARA: *To the south is the great ceremonial court. To the east stretches the long Heb-Sed court as well as forecourts to the southern and northern buildings. To the north another large court lies before the "palace building." After Lauer*

IN THE SHADOW OF THE KA

The beginning of stone architecture is inseparably bound up with the concept of the Ka, and it was for the Ka of the founder of the Third Dynasty, King Zoser, that stone architecture first came into being.

The Ka, as we have seen, is a kind of vital force emanating from the god to his son the king. The king was the only earthly possessor of this cosmic and divine force, but he could dispense it to his subjects. The desire for an eternal continuation of earthly existence found its expression in stone architecture, for only stone could provide an indestructible container for the Ka. The Ka hieroglyph, two vertically upstretched arms, is closely related to the prehistoric **90** gesture of bestowing force, and one of the spells in the Pyramid Texts reads: "Atum, so put thine arms . . . about this pyramid, as the arm(s) of a *ka,* that the *ka* of N. [the king] may be in it, enduring for ever and ever" (Utterance 600; tr. Mercer, 1952, I, p. 253).

King Zoser's mortuary complex at Saqqara gravitates about the step pyramid — the first of all the pyramids — which we will discuss in Part VII. Surrounding the pyramid is a vast walled enclosure within which are shrines, altars, courts, gateways, storehouses, tombs, etc. It was the king's Ka who resided in the subterranean palace chambers, who issued his orders in the government building, ran his ceremonial race in the large court at the time of his jubilee festival, wandered through the entire precinct, closing behind him the ever-open carved stone doors leading to chapels and other buildings, and departed on journeys through the many dummy doors in the high enclosure wall.

Zoser had two tombs within the complex. His mummy was deposited in the one below his step pyramid. The other, attached to the south enclosure wall, was only discovered in 1928 by Firth and Lauer. At the end of small passages hewn deep down into the rock, a totally unexpected marvel came to light: the low walls were covered with small blue tiles, each of them convex and scarcely larger than a brooch. Their glaze is still brilliant as a butterfly's wing. Mrs. Firth's watercolors of the chambers of Zoser's southern tomb give a vivid impression **266** of the sudden surprise of this scene amid eternal darkness. The tiles represent reed matting set in wooden

frames here represented by stone posts carved to resemble wood. Surmounting them are shallow arches filled with a row of *djeds* — the hieroglyphs for eternal duration. Between the tile sections are some of the loveliest reliefs of the Old Kingdom. They show Zoser running his ***267*** ceremonial race, and include his titles in beautifully carved hieroglyphs.

We are here in the intimate domicile of the Ka: bedchamber, reception room, and nearby — still in miniature, but large enough to be accessible — storage chambers for all his personal needs.

Entrance to the two groups of almost identically equipped tomb chambers is exceedingly complicated. Those below the pyramid had been discovered in 1842 by Karl R. Lepsius, and parts of them sent to the Berlin Museum. Whether the duplication of these tombs was due to the separation of the burial of the king we are not certain. As ruler of Lower Egypt, his body was buried below the pyramid to the north, but the canopic vases containing his entrails were placed in the southern tomb as a symbol of his domination over Upper Egypt.

The Heb-Sed festival for the Ka

Why did the Ka need so large a complex? Because the creative vital force from time to time needed regeneration. The strength of the king, like that of nature itself, needed periodic renewal. This was effected at the Heb-Sed festival, at the jubilee of the king's reign. We do not know the exact intervals at which the jubilee recurred. Normally it was thirty years, or the span of a generation. "It has been supposed, with some reason, that the royal power was originally granted only for thirty years, after which the king would be deposed and perhaps also killed" (Drioton and Vandier, 1938, p. 147). This was to spare the land from declining because of his sinking vitality (Spiegel, 1953, p. 138, par. 209).

Just as the Ka cannot be likened to our concept of the soul, so the Heb-Sed festival cannot be compared with a contemporary royal jubilee. "It was not a mere commemoration of the king's accession. It was a true renewal of kingly poteney" (Frankfort, 1948, p. 79). It was not confined to the person of the king, but was also "a renewal of all those beneficial relations between heaven and earth which the throne controls" (ibid.).

This required time. The festival lasted for five days filled with highly complex ceremonies. The king, seated first upon the throne of Upper Egypt and then upon the throne of Lower Egypt, received declarations of loyalty and gifts from the provinces. The thrones, surmounted by a double baldachin, stood back **268, 374** to back upon a platform approached at either end by several steps. The form of the vaulted awning had existed in the early part of the First Dynasty, and had undergone few changes since (Badawy, 1954, p. 66).

During the second part of the ceremonies the king became active. It was necessary for him to display his physical powers. In a special pavilion he discarded his royal garments and his crooklike scepter, then set out to run a ceremonial race between the two fixed stones which still remain in the large court. This sprint was regarded as a dance over the "field" that symbolized the two lands of Egypt. It grew out of ancient fertility myths, and a cylinder seal of the First Dynasty shows an early king running his ritual course just like Zoser in the relief in his blue-tiled underground chamber. But on the cylinder **267** seal the king is accompanied by the bull Apis, whose traverse of the fields ensured their fertility (Vandier, 1952, I, pp. 862-63).

The relationship between the bull Apis and the king's ceremonial race was preserved. P. Lacau says the first record that the bull was indeed Apis appears on a relief which represents Queen Hatshepsut as a Pharaoh, together with a bull. This was on one of the blocks from her chapel later buried in the foundations of the pylon of Amenhotep III at Karnak (1926, fig. p. 131).

ARCHITECTURE FOR THE KA OF KING ZOSER

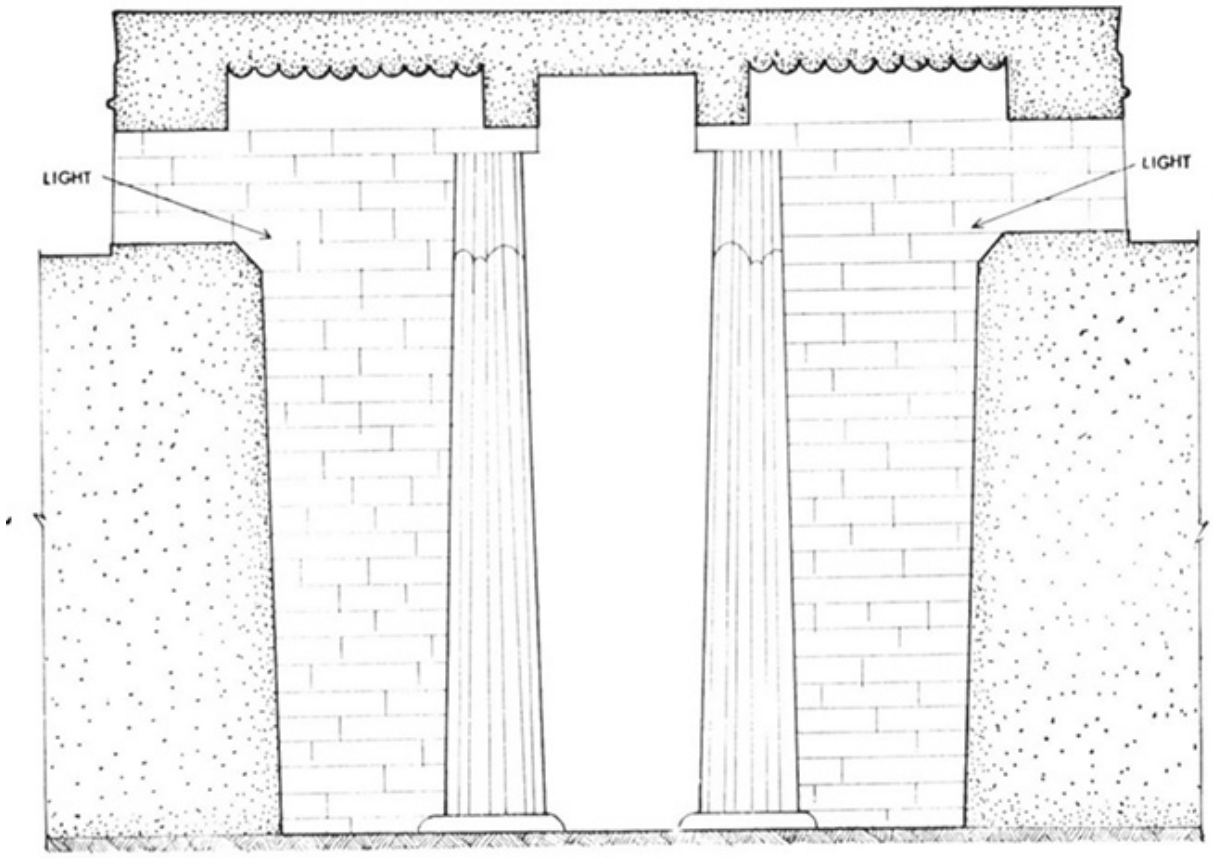
The sacred precinct of Zoser's step pyramid is in every respect a venture into the unknown under the impetus of an unshaken and powerful faith in the existence of the Ka. While the complex attains a scale hitherto unheard of, every aspect reveals its experimental nature. A new chapter opens, for this is the first time man has attempted to create architecture from stone. From the heavy portcullis blocks of the mastabas, this weighty material — stone — now **270** comes out of the darkness into the exuberant light of the sun.

A new kind of imagination was demanded of the architect when he approached this "eternal" material instead of working with mud bricks and reed or wood posts. Many details of the masonry betray his hesitancy in handling his new material. The blocks are small and the drums of the engaged colums seldom **280** exceed ten inches in height. At the same time Imhotep had the courage to erect a structure 204 feet high, with a craftsmanship that has withstood all ravages of **252 col** time.

Only through Lauer's rebuilding have we gained a vivid impression of Zoser's mortuary complex. Firth drew attention from 1924 to 1931 to the various parts of the complex: enclosure wall, entrance hall, Heb-Sed court, etc. Lauer arrived in Saqqara in 1927 with J. E. Quibell, and after the early death of Quibell he concentrated with inflexible determination upon rebuilding the great complex

ONLY ENTRANCE TO ZOSER COMPLEX: *A narrow ever-open doorway (1 x 6 m.) through a fortresslike entrance tower*

COLONNADED PROCESSIONAL HALL: *Ribbed engaged columns terminating tonguelike protrusions form niches along both side walls. Roofed with flat slabs. Lighting from oblique-angled slits near the ceilings of the niches*

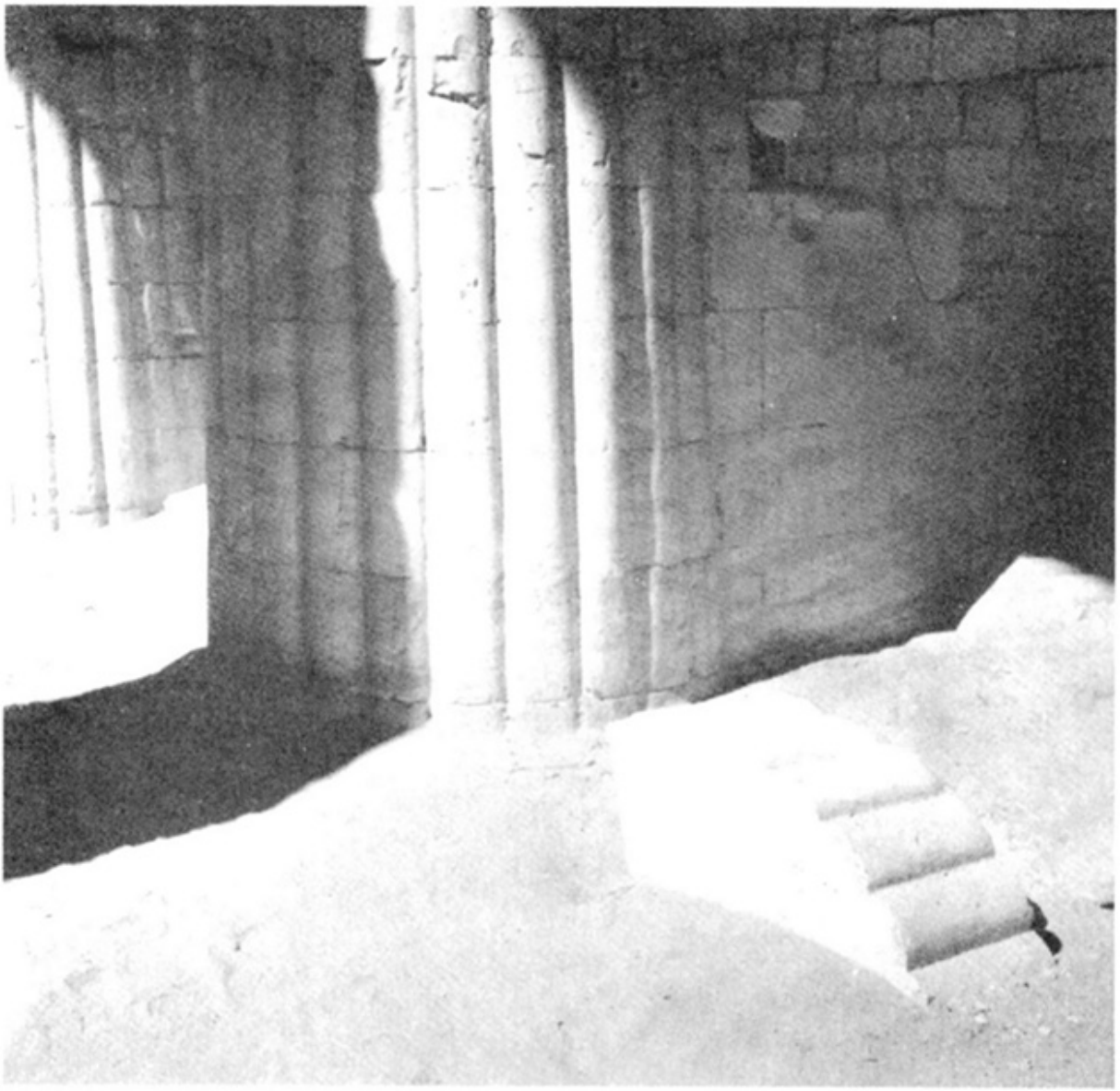


SECTION OF PROCESSIONAL HALL. *Drawing after Lauer*

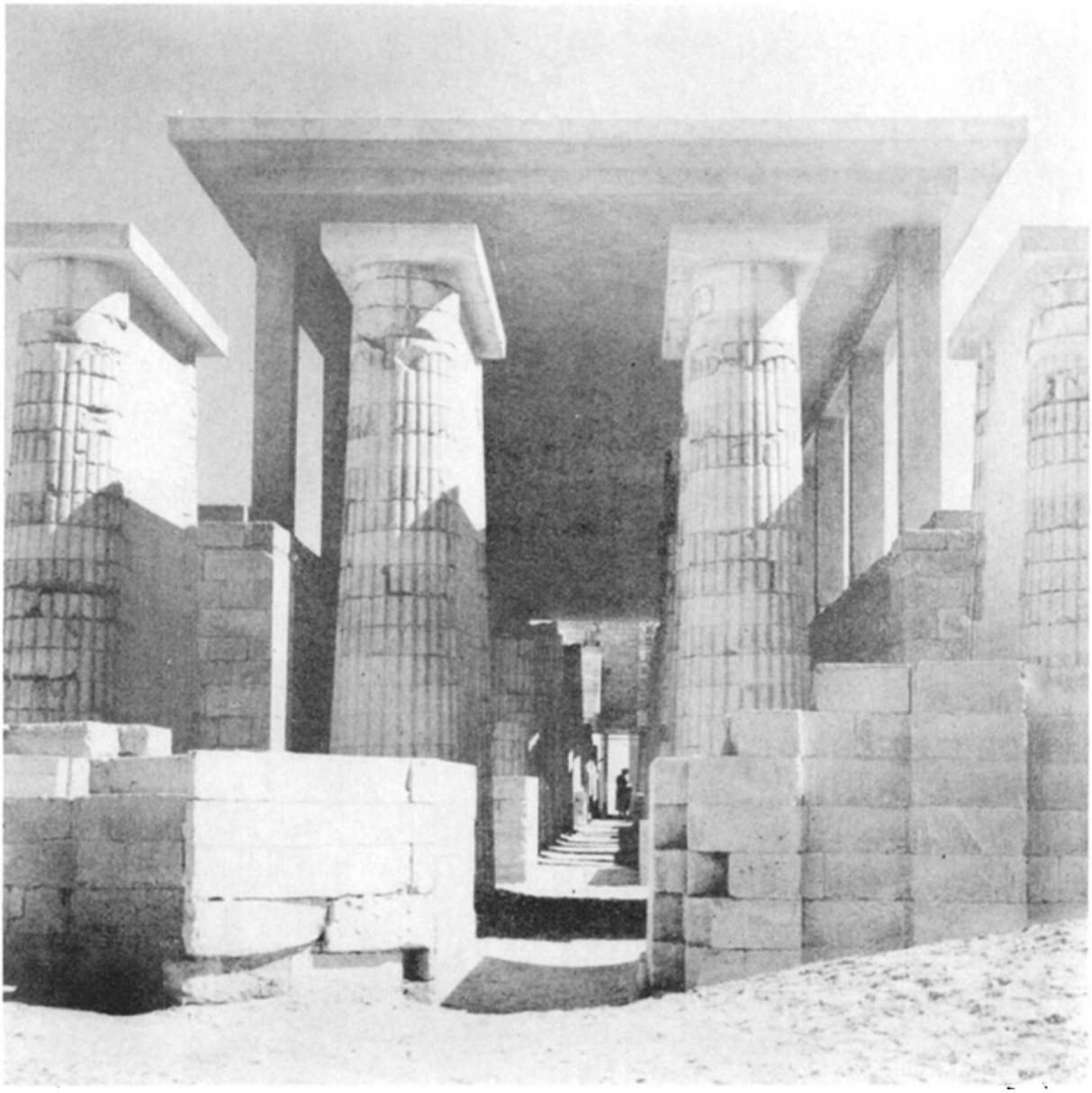
(Firth, Quibell, Lauer, 1935). There are other great excavators, but Lauer is unique. Like Borchardt and Ricke, he is an architect by profession, but he has dedicated his life to reconstructing the Zoser complex. When I revisited Saqqara **286** at the end of 1960, Lauer, in his sun helmet, surrounded by his workmen, stood before one of the chapels in the Heb-Sed court. He was about to raise its back wall to the original full height of the shrine. He has stuck to the task of restoring to Zoser's monument some of its early brilliance. Without his careful piecing together of its original fragments we could never have experienced the magnificence of man's earliest architecture in stone.

274 Zoser's complex embraces a rectangle of some thirty-five acres, within a **248 col** paneled wall of beautiful limestone ten meters high. This may or may not have symbolized the "white wall" of sun-dried brick that surrounded Memphis, the newly founded capital of Menes, first king of Upper and Lower Egypt. The **271** paneling — a sequence of rectangular projections and recesses — recalls mastaba and palace frontages of the First

and Second Dynasties. This surface treatment subsequently lost its architectural importance. It did not disappear, but was relegated for the most part to the outside of sarcophagi, especially in the Old Kingdom.



RIBBED COLUMNS, PROCESSIONAL HALL: *Detail. The drums of the columns seldom exceed ten inches in height*



END OF PROCESSIONAL HALL: *The end facing onto the ceremonial court is formed by a sort of hypostyle hall. The passageway widens to include four pairs of engaged columns. A stone Ka door stands permanently open in the left foreground. Note: The protective concrete-slab roof on supports is modern*

Interior spaces: the processional hall

The Egyptians never showed great interest in the elaboration of enclosed interior space. Many of the buildings of the Zoser complex were dummies, consisting **288** of a stone façade directly backed with rubble — like a stage

set. Some of them have fragments of interior space, but only as a kind of gesture. It is otherwise **250 col, 281** with the long processional hall that sets the pace for the entire complex. **279** Its shrouded lighting, slanting through horizontal window slits, and the conception of a sacred inner space as a hall of passage persisted. Even the gigantic **259 col** hypostyle of the temple of Karnak followed this earliest conception.

Many false doors were indicated upon the enclosure wall, to allow King Zoser's Ka freedom of movement. But there was only a single entrance for the **278** living. Through it passed Zoser's procession on the occasion of his festival. This door, no more than a meter wide, stood eternally open and formed part of a **249 col, 286** fortresslike tower of considerable height. On entering through a passage into a tiny trapezoid court, one is confronted by two wide doorways, each with an ever-open stone door carefully carved in place. A second short passage is followed **281** by another ever-open stone door. All could apparently be closed by the Ka between the dates of his festivals.

We now enter the first large stone hall — fifty-four meters long. It is a processional way, like the later hypostyle halls of the New Kingdom, as in the **392** Luxor temple. Zoser's hall of passage was flanked by twenty engaged columns of red-painted limestone upon either side, which formed the ends of short transverse **279** tonguelike walls projecting from the long outer walls, and thus created a series of open chapels. It is interesting that the center aisle had already become higher than those on either side, so that only a dim light could penetrate the **376** small slits high up in the outer walls. This system lasted: we see it in Chephren's **370** valley temple of the Fourth Dynasty and in Tuthmosis III's festival hall in the Eighteenth.

Like the entry, the exit from the ceremonial passageway was spatially enlarged, **281** not by a court but by a covered hypostyle-like enclosure. Four pairs of ribbed and engaged columns were connected by cross walls. There is an obvious tendency toward the creation of larger interior spaces, but the time of the freestanding supporting column has not yet arrived.

Exterior spaces: the galaxy of courts

What always interested the Egyptians was placing volumes in space, making immediate the contact between a man-made structure and the

cosmos.

Large inner courts, surrounded by colonnaded porticoes, were also conceived in relation to the sky. Stars and sun were painted upon the ceilings of their ambulatories. The development of the inner court began with the funerary **328** temples of the Fourth Dynasty and continued thereafter. Their peristyles were an indispensable introduction to the sanctuary, which was never relinquished. Finally, in the terraces of Hatshepsut's mortuary temple, they were, so to speak, **262 col** built into the cosmos.

In Zoser's complex a galaxy of courts radiates from the step pyramid. But **274** these are not inner courts in the later sense. None possesses even the germ of a colonnade. They are in truth piazzas in the city of the Ka: the great court for the ceremonial race surrounded by buildings, the smaller Heb-Sed court bordered with two rows of chapels, the piazzas before the "government building" and the "king's palace." None of these forms part of an actual building. Their symbolic meaning is different from that of the inner courts of the Fourth Dynasty temples. Even so, they are prototypes of what is to come. They gave courage to create large-scale open areas within a building complex.

The great court of the ceremonial race

On the longitudinal axis of the great court of the complex stand two B-shaped blocks between which Zoser's Ka would continue to run his ceremonial race at the jubilee festivals. There is also a square altar with a ramp (sun altar?) and the temple named "T" by Lauer, which was thought by Ricke to be the pavilion **251 col** in which the Ka of the king could be divested of his royal raiment before running his ritual course. It was separated from the court by a low wall that probably contained an entrance.

Along the west side of this court stretches the long façade of dummy storehouses. Its eastern wall backs onto the Heb-Sed court. The step pyramid occupies the north side, leaving an opening to an offering court. The main feature toward the south is the vaulted southern tomb of the king, attached directly to the enclosure wall of the precinct. Its real significance is still unknown.

The Heb-Sed court

In this court the king's Ka was reinvested with royal power to rule over Upper **below, 252 col** and Lower Egypt. The east and west sides were lined with chapels for each of the provinces (nomes). Beside each chapel entrance hung a limestone door **286** pivoted permanently open upon its carved socket. Upon entering the chapel, **right** one has to circumvent a screen wall (*couloir à chicane)* to obtain access to a small offering niche; no view of the cupboardlike niche is possible from the entrance. **right** Fences charmingly sculptured in limestone separate one chapel from the next, and were certainly derived from the customary wooden fences. Behind the chapels rose tall dummy buildings consisting of a series of façades of high **286** vaulted shrines, one of which Lauer was reconstructing to its full height in 1960.

At the south end of the court, a great stone platform approached by two flights of steps supported the two coronation thrones with their canopy.

In the northwest corner of the court, standing in a shrine, four statues were **287** once attached to a wall (Zoser with his wife and daughters).

Courts of the northern and southern buildings

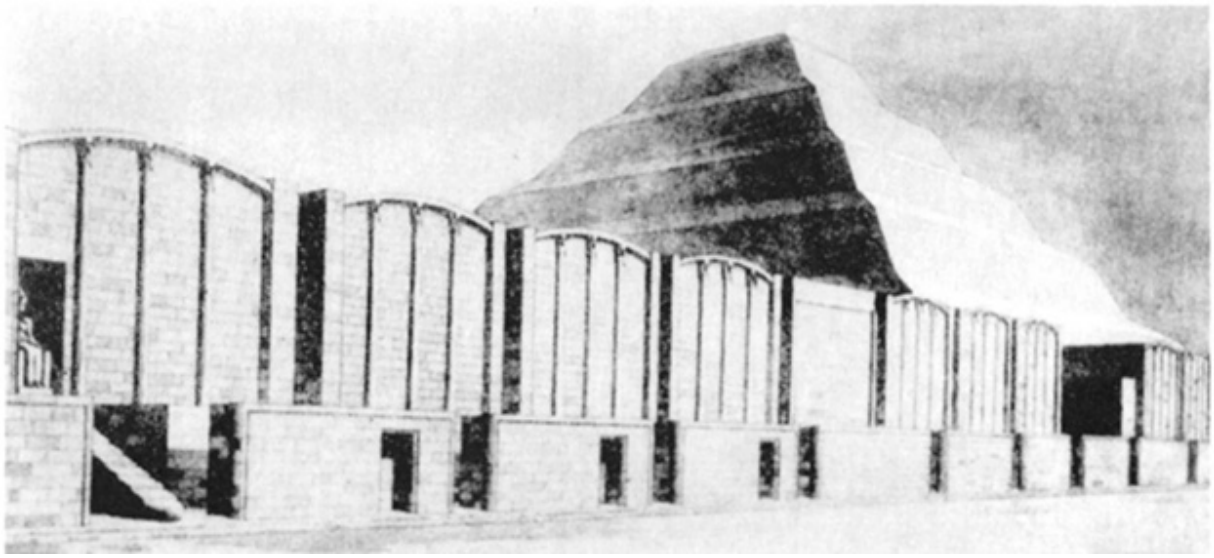
Following the most careful research, Lauer has reconstructed the limestone **288** façades of these two buildings with their arched cornices, tall engaged columns, and pendent leaf capitals that were never repeated.

Ricke was concerned here, as in the whole complex, to discover the significance of these two dummy structures. He arrived at the conclusion that they were replicas, reduced in size, of the government buildings of Upper and Lower Egypt, which may have stood in Memphis. He believed he could recognize **289** representations of a timber skeleton construction with nonbearing walls of mats, reminiscent of the tent palaces of Upper Egypt.

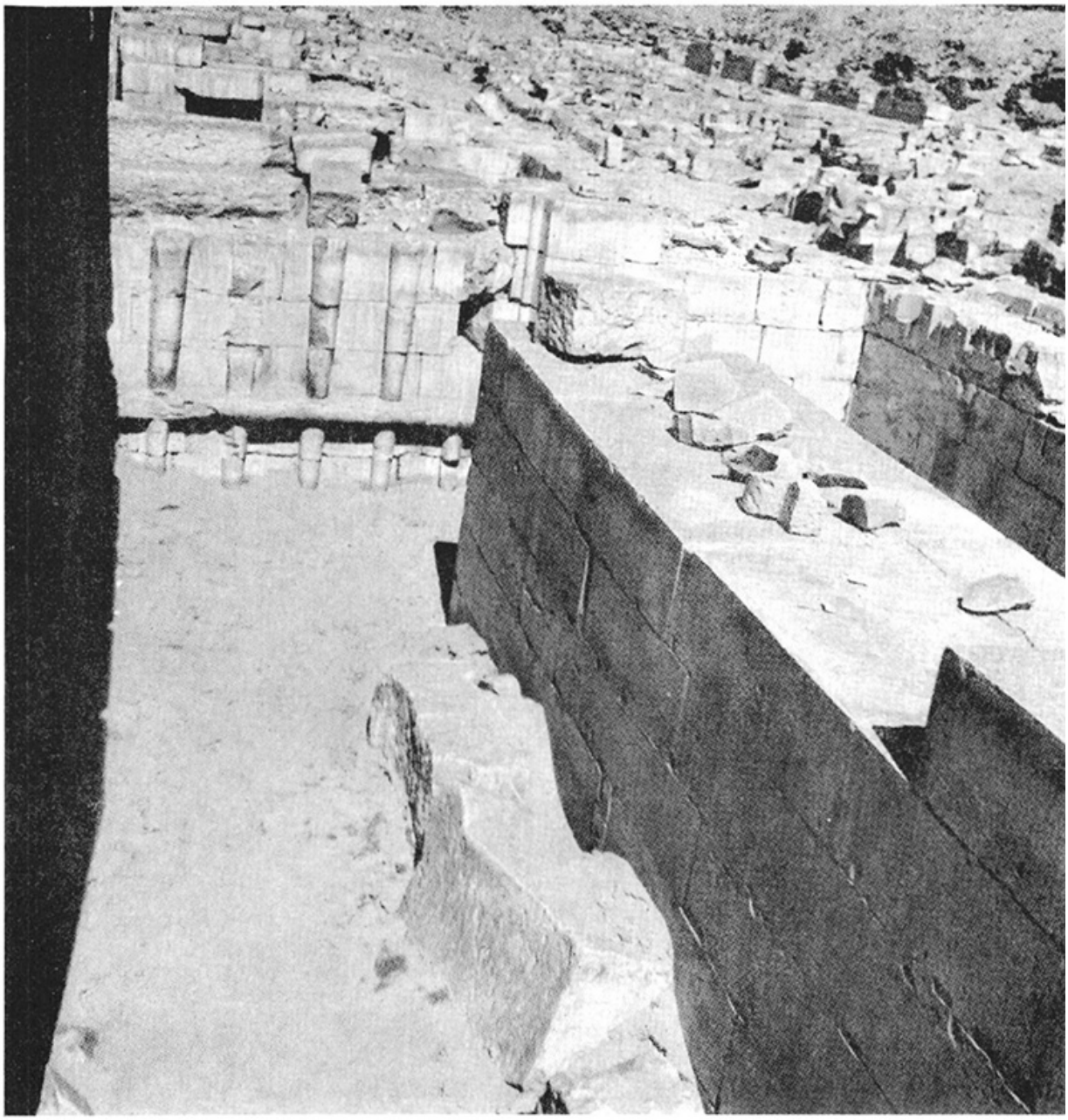
The southern building is approached from the east face of the step pyramid across a respectable plaza.

The fluted ribs of the tall shafts on both façades bear an apparent resemblance to the profile of a Doric column, but this is entirely illusory. Their corrugated surfaces never became popular in Egyptian architecture. Like the paneled recessed walls, they induced a strong play of light and shadow that did not correspond to the Egyptian ideal of a plane surface. The Egyptians preferred perfectly circular columns, or the papyrus-stem

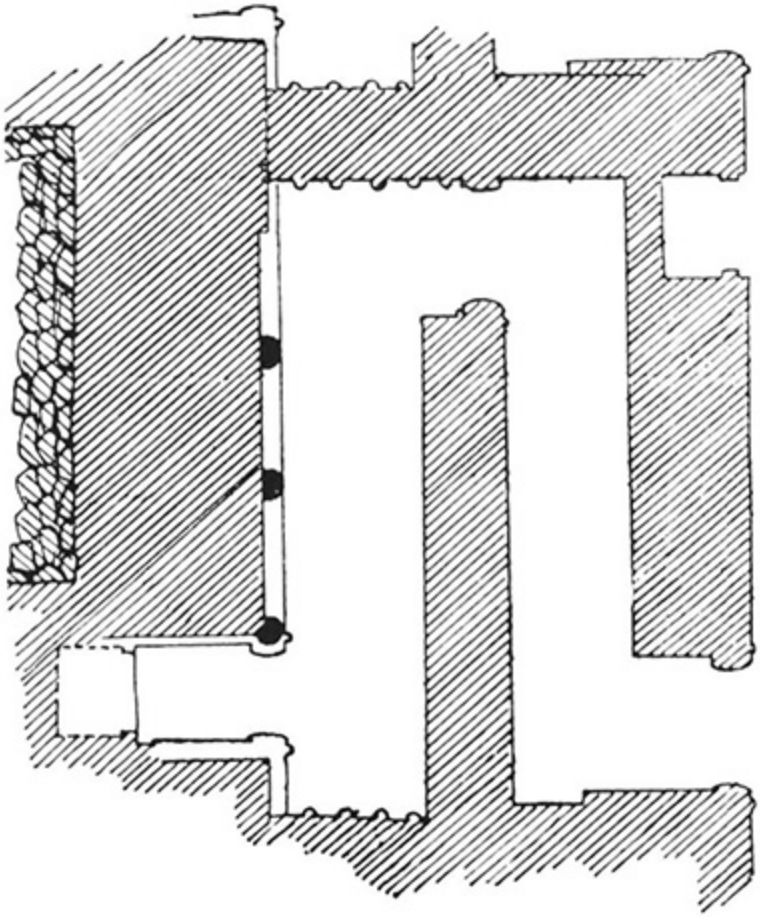
columns whose prototypes stand **250 col** along the processional passageway of Zoser's complex. About eleven hundred years later, Senmut used proto-Doric columns in the open colonnades of **431** Hatshepsut's mortuary temple.



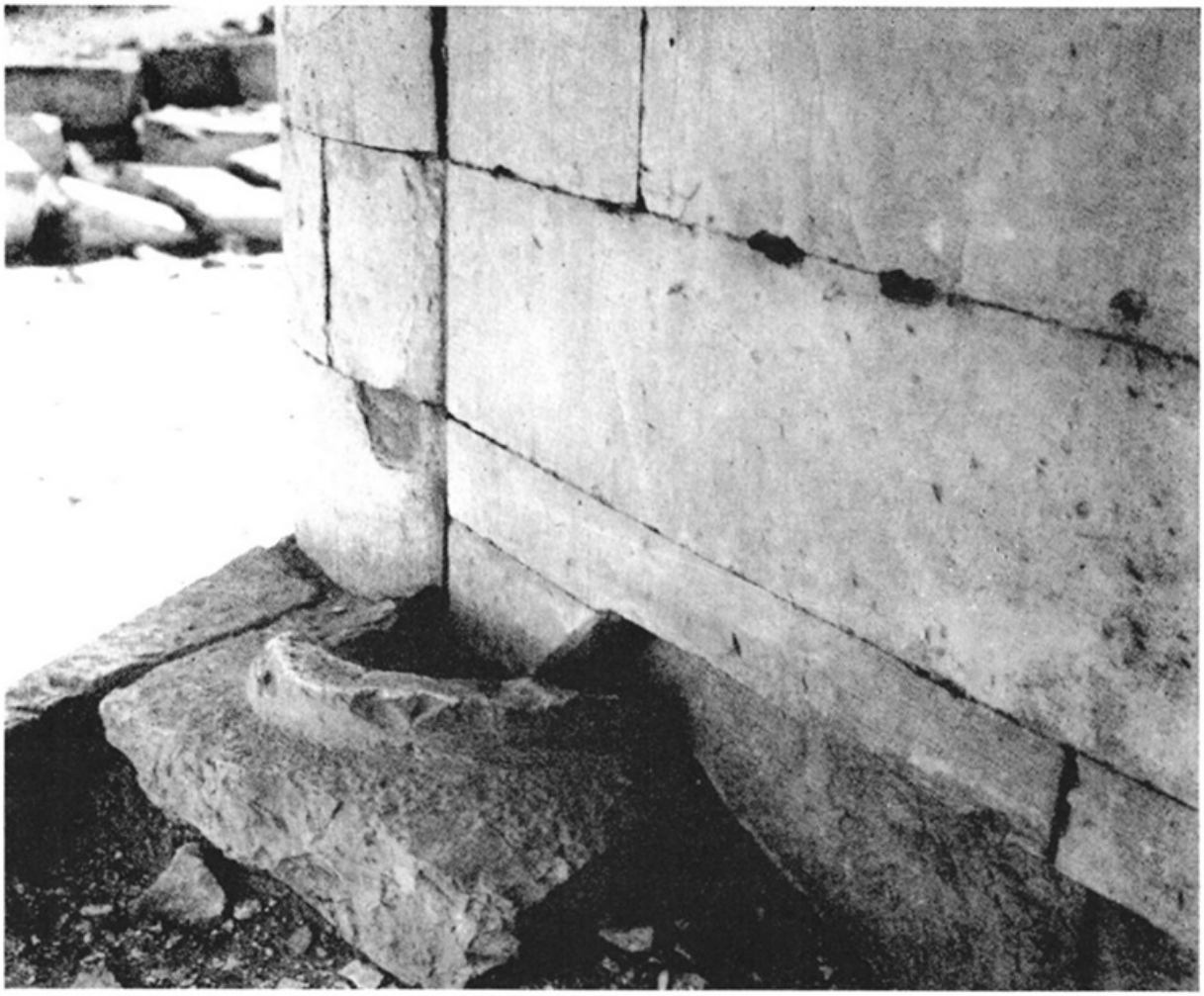
RECONSTRUCTION OF HEB-SED CHAPELS: *The east side of the Heb-Sed court with its row of tall dummy shrines fronted by lozv chapels* (*cf. col. pl. VI). From Lauer*



INTERIOR OF A HEB-SED CHAPEL: *The dividing wall enforces a zigzag access (couloir a chicane*) *to the offering niche. Graceful fences in stone symbolize separation from the the next chapel*



GROUND PLAN OF HEB-SED CHAPEL *showing entrance, couloir à chicane, and offering niche. Drawing after Lauer*



PIVOT OF KA DOOR: *Every detail of this opened Ka door is executed in stone, including the pivot and socket, as everywhere in the Zoser complex*

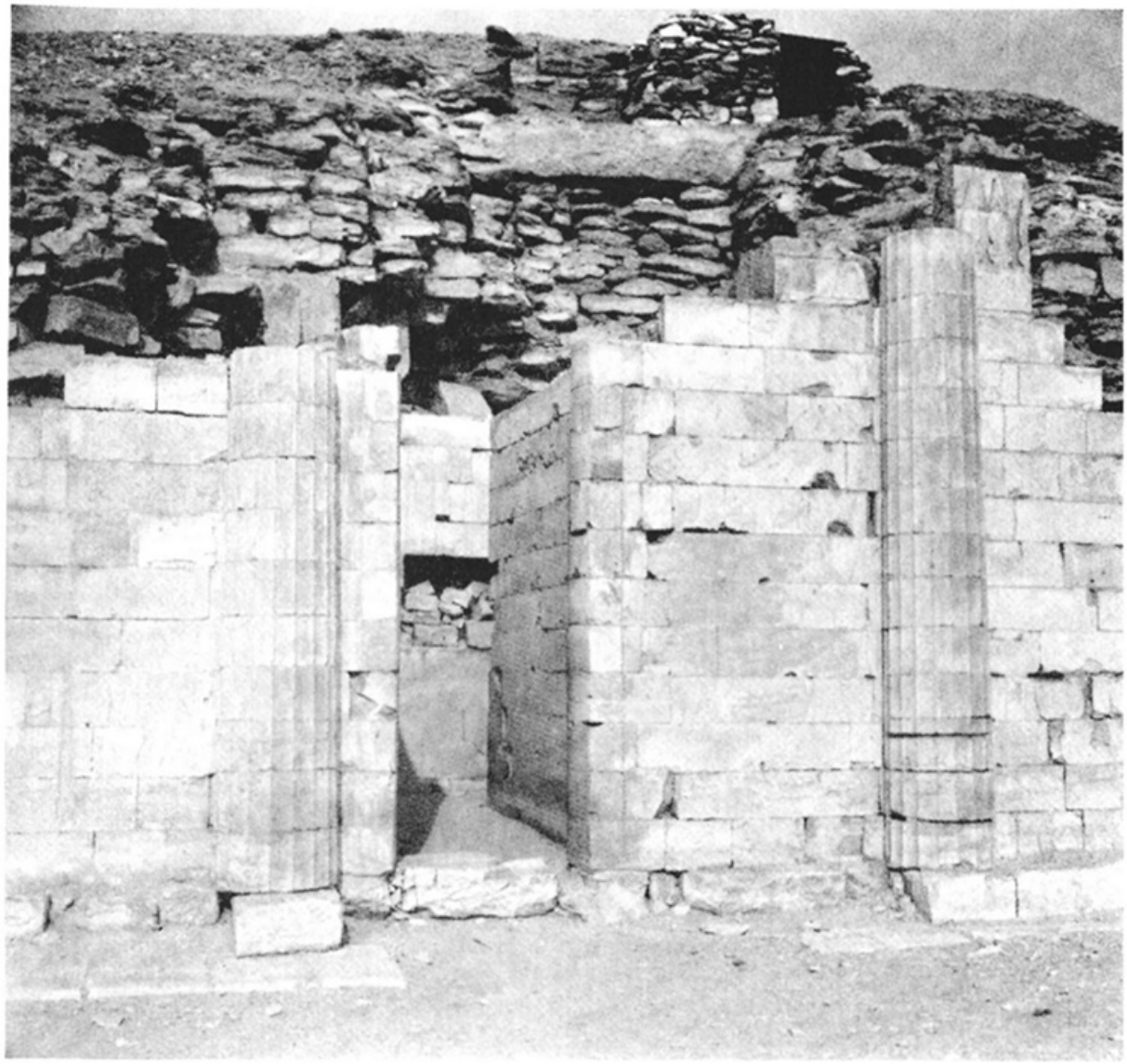
JEAN-PHILIPPE LAUER RECONSTRUCTING A HEB-SED CHAPEL. *December 1960*

On the east wall of the northern building are three engaged papyrus columns beneath an arching cornice. All essential attributes of this emblematic plant of Lower Egypt are indicated: the bell-shaped cup of the flower, and the triangular **247 col** stem which almost springs out from the wall. This first capital in stone is imbued with all the freshness and vitality of early spring. It is perhaps the most exciting of the many architectural details that first came into being in Imhotep's mortuary complex for King Zoser. The papyrus column, it is well known, never disappeared from Egyptian architecture; it always represented the power of organic growth shooting up toward the sky.

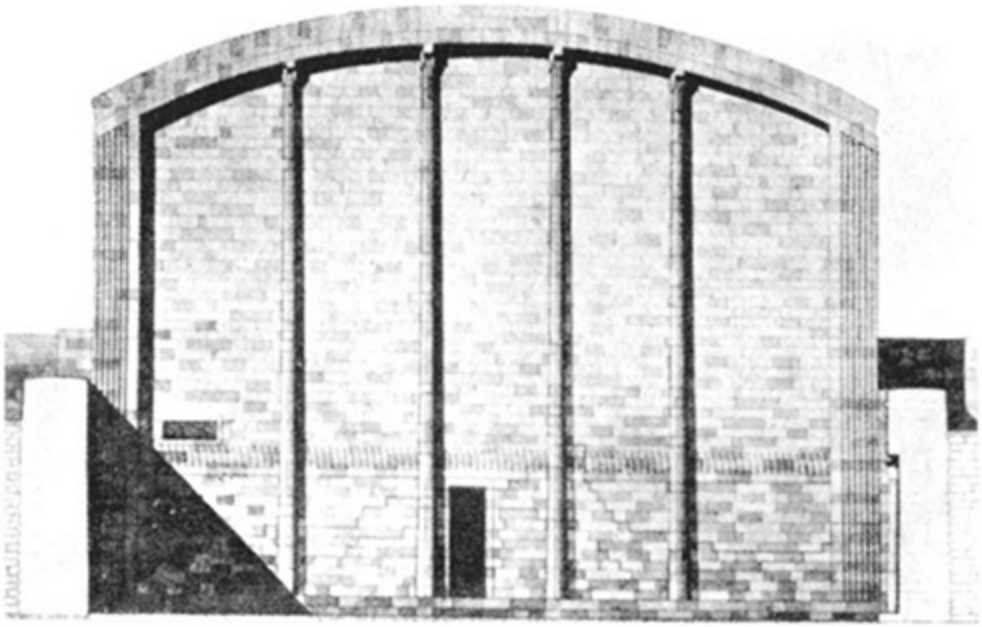
In a final court on the north face of the step pyramid is the serdab, a com- **290** pletely enclosed, cupboardlike chamber containing the statue of Zoser. Adjacent are the remains of a large building considered by Lauer to

have been a mortuary temple, but by Ricke the palace of the king's Ka. The latter opinion seems the more convincing, not only because mortuary temples were customarily situated on the east face of the pyramid, but also because the elaborate rituals connected with them were developed during the Fourth Dynasty.

FEET OF FOUR LIFE-SIZED FIGURES *in Heb-Sed court: Probably Zoser, his wife, and two daughters. This would have been the earliest group of its kind*

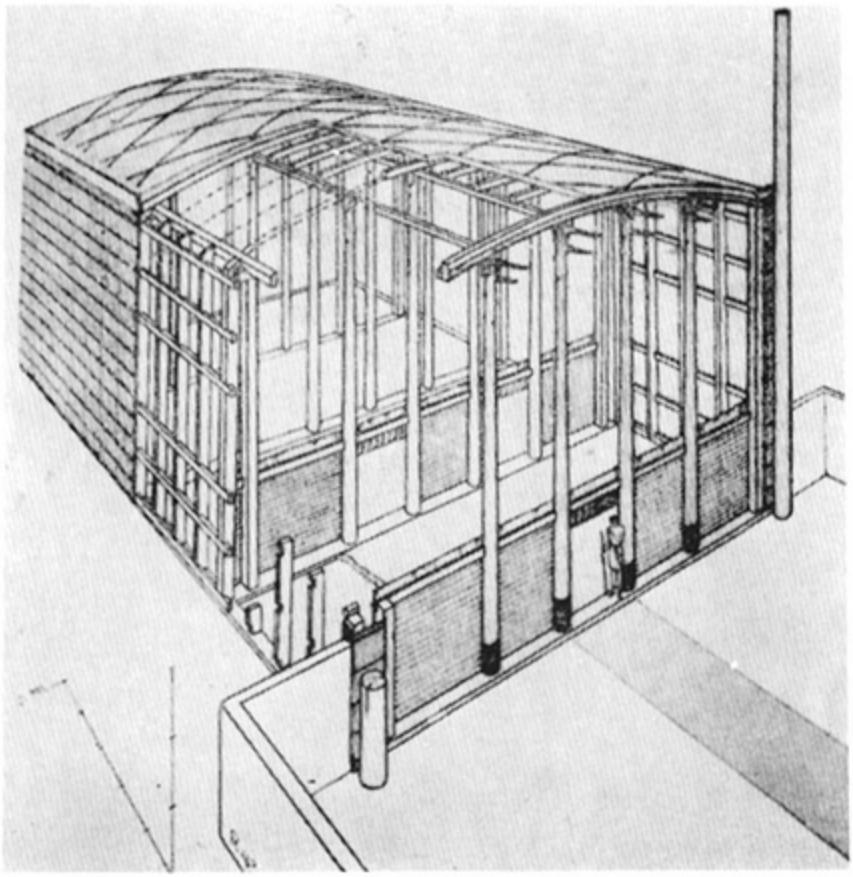


FAÇADE OF NORTHERN BUILDING, *partly reconstructed, showing the rubble backing of this dummy structure*



FAÇADE OF NORTHERN BUILDING: *Reconstructed to its full height. Drawing from Lauer*

ENGAGED COLUMNS WITH PAPYRUS CAPITALS *on east wall of dummy northern building. These are the origin of all later variants of papyrus columns used throughout Egyptian architecture, even into Roman times (Philae*)



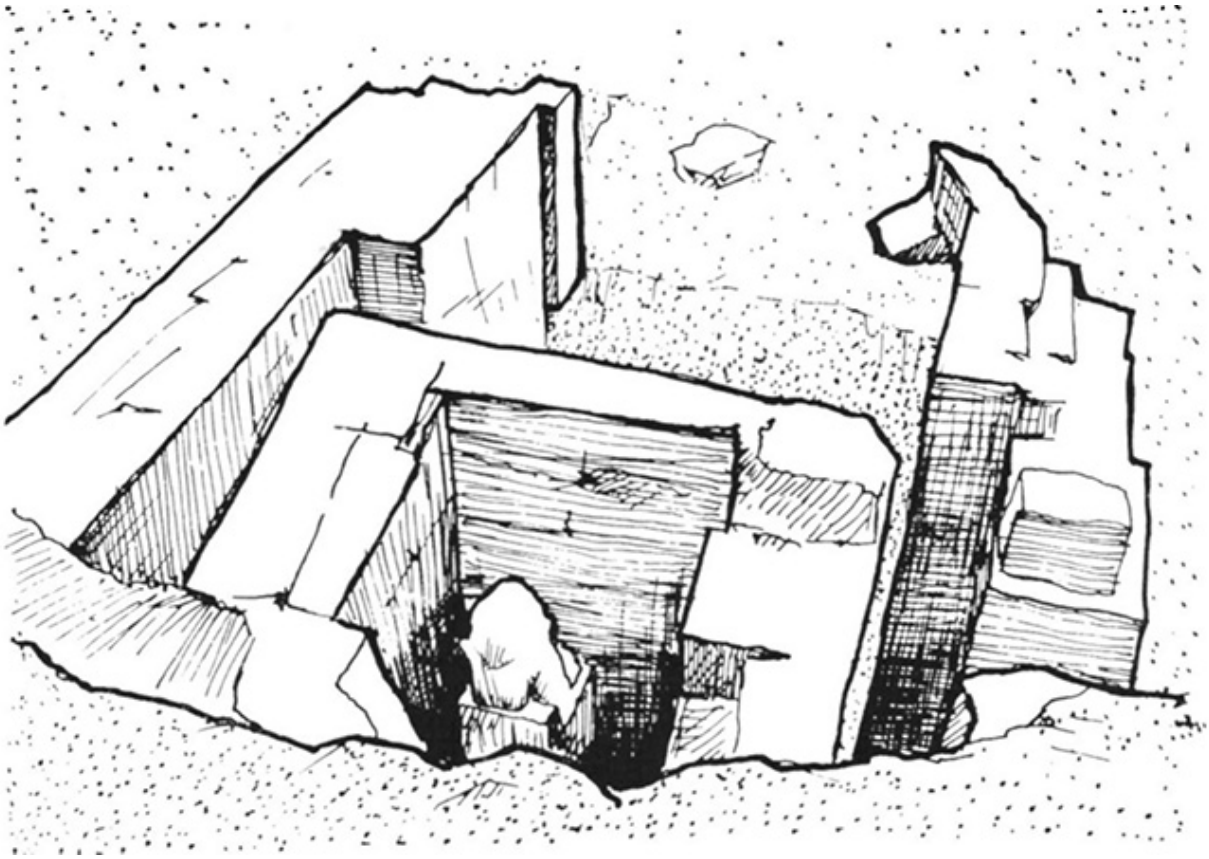
STRUCTURE OF A GOVERNMENT BUILDING *of Upper Egypt: A timber skeleton developed from a tented palace. Ricke has suggested that the northern and southern buildings represent government palaces of Upper and Lower Egypt. Drawing from Ricke*

THE ZOSER STATUE IN THE SERDAB

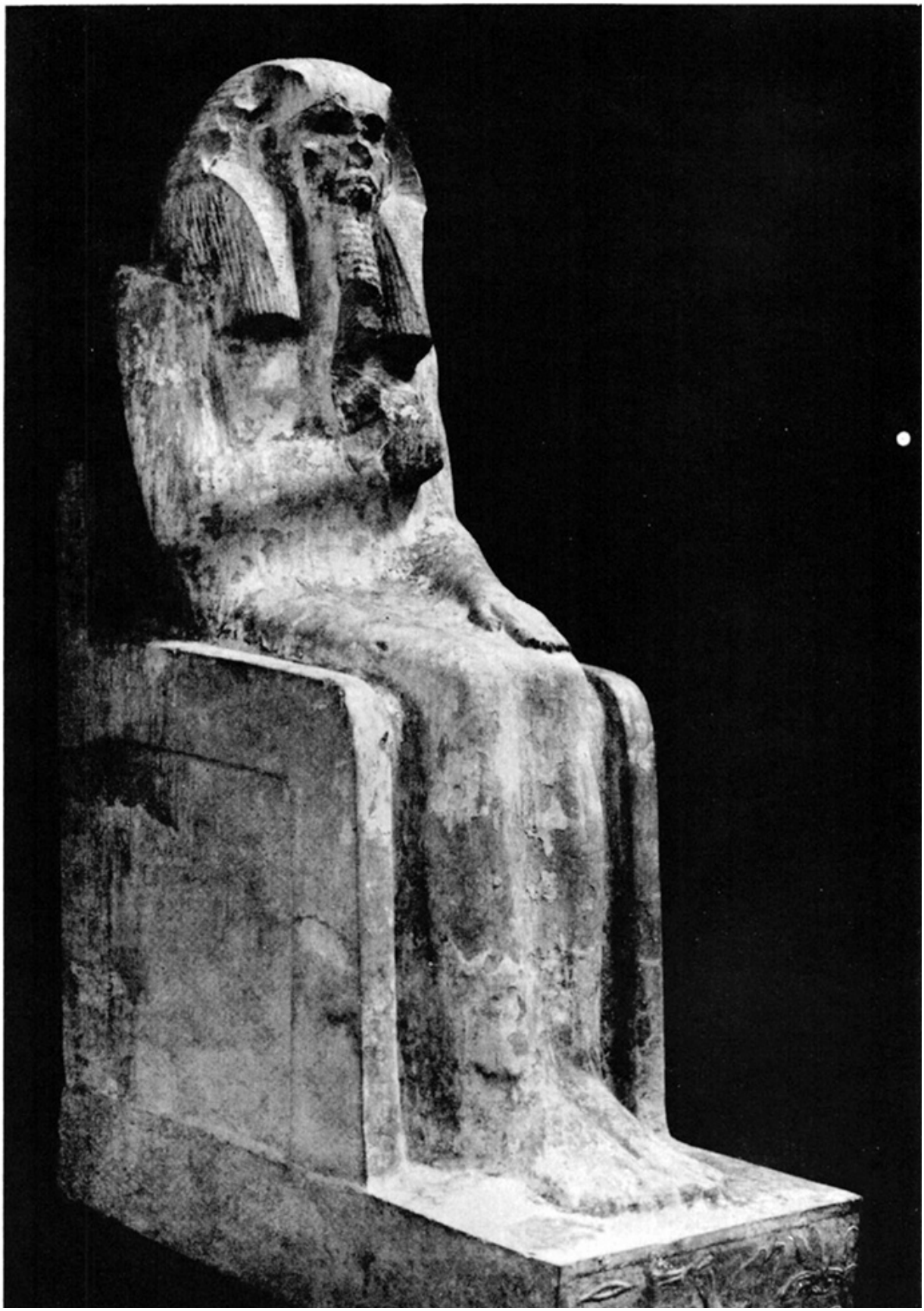
Many works of sculpture have disappeared, or have left only insignificant **287** remnants, such as the feet of the four human figures which once stood upon a raised platform in the northwest corner of the Heb-Sed court, probably representing Zoser, his wife, and their two daughters. If complete, they would be the first life-size statuary group of human figures, long antedating the well-known **469** groups with King Mycerinus at the end of the Fourth Dynasty.

The statue of Zoser that Firth found in 1924-25 at the northeast corner of the **right** pyramid was almost undamaged (1925, p. 149). There sat the king in the darkness of his paneled closet — his serdab. Only two round holes cut at eye level in the wall facing him linked him with the outside world. Through them he could receive the odors of incense and his crystal eyes could gaze out into the void.

The original limestone statue of the king, now in the Cairo Museum, has been replaced with a good cement copy from which one receives an uncanny impression of the ever-vigilant ruler sitting in darkness. His face is undamaged except for the eyes and nose. Even this disfigurement fails to detract from the majesty that emanates from his high-held head, with its deep-set eyes and its modeled cheekbones. His left hand, the fingers close together, lies flat upon his knee. This position was to be retained by all later statues of Pharaohs. Zoser's right arm, bent at a right angle, lies across his breast.



STATUE OF ZOSER IN HIS SERDAB. *Drawing after Firth*



SEATED STATUE OF ZOSER *found in his serdah*

He wears the garments ordained for the Heb-Sed festival, the ritual headdress falling to the shoulders, and the ceremonial beard.

In this statue, if anywhere, one senses the great dignity, and perhaps also the tragedy, inherent in the god-king. It is also the first movingly human representation in Egyptian art.

The few small statues that have come down to us from the Second Dynasty bear no comparison with this one. Particularly if one looks for the expressive power of the human countenance, which is so decisive for all future development, one must cast the net wider. We do not know exactly how many centuries lie between **104** the grieving, enigmatic face of the priestess of Uruk from the Jemdet Nasr period and the statue of King Zoser. The Sumerian alabaster head is far closer to human tragedy than Zoser's immutable countenance. But his statue is in the line of the conquest of the human image as the highest form of art.

As the whole Zoser complex was destined for the Ka, so was this statue of the dead king. It, not the mummy, was the seat of the Ka when he returned from his wanderings. For this reason there were often later several such statues, each carefully protected within a serdab, since "the Ka, as the source of divine being, is the guarantor of eternity" (Greven, 1952, p. 33). Therefore one protects it and hides it, as in the serdab, "for with the destruction of this representation his eternal existence also ends. The Ka has no free existence of its own, it needs an external form in which the divine can make its appearance" (ibid.).

Since the king was the only human possessor of the Ka, the first Ka statue could only "stem from a royal tomb. According to the present state of knowledge, it is Zoser's statue that fits this designation" (ibid.). Thus it is understandable that the greatest sculptural intensity was concentrated upon this enclosed statue, which was one with the pyramid and stood in the closest relation to the tomb deep below the earth.

ON THE SIGNIFICANCE OF ZOSER'S MORTUARY COMPLEX

Tectonic elements

Zoser's complex contains the beginnings of many features that later became constituent elements in the development of space and form in Egyptian architecture. At the same time, the eye can readily test in the irregularities and corrections of the stonework in the Zoser complex how unaccustomed to handling this material the early builders were. Thus it is even more astonishing to behold the richness of imagination expended upon every detail.

Among the tectonic elements which first appear here are the cornice, the torus molding, stone corner posts and columns (Badawy, 1954, pp. 79-83). Of these forms, the stone column may be selected as witness of the continuity of Egyptian tradition. The compound shafts of bundled reeds in Zoser's processional hall **250 col** grew to monumental dimensions in the Fifth Dynasty, and similar papyrus-bundle columns were erected as late as the first century A.D. in the Isis temple on the island of Philae. The open papyrus flowers upon the columns of Zoser's "government **247 col** buildings" later swelled to monstrous proportions along the main passageway **259 col** of the great hypostyle hall at Karnak. The polygonal columns — often called proto-Doric — of Temple T and the "government buildings" reappear **251 col** comparatively rarely later, as in the Middle Kingdom (Mentuhotep's mortuary **288, 410** temple), and in the New Kingdom (Hatshepsut's mortuary temple). **431**

Life on earth and life beyond

Stone architecture grew from an immutable conviction that life in the hereafter was a direct continuation of earthly existence, with its recurrent festivals and its daily round of activities. But this continuance depended on many precautionary measures, from simple offerings "causing his name to

live," to mansions in which the dead might live forever. The form of the final home changed many times during the history of Egypt, but the conviction remained that life in the beyond, like life on earth, never stood still. Its movements were bound up with the eternally recurrent cycles of the stars and the sun. The vital force — the Ka — wandered continually to and fro from earth to heaven.

Never was the life on earth so directly projected into the life beyond as in the sacred precinct of Zoser's step pyramid. Its courts and buildings served one exelusive purpose — to provide an eternally renewed existence. Everything radiates a joyous optimism.

The Zoser complex stands between the comparatively humble mastabas of the kings of the first dynasties and the dramatically organized pyramid complexes of the Fourth Dynasty, ruled by the complicated ritual and overpowering might of the priesthood. In Saqqara a gentle smile seems to hover over the entire complex. This optimism reappeared but once, in the mortuary temple of Queen Hatshepsut at Deir el Bahari, about eleven centuries later. But the idea of creating a whole architectural setting for the use of the Ka was never to recur.

PART VIII PYRAMIDS: RITES AND SPACE

Pyramids are the triumph of pure abstract form.

With his own hands, man makes his work stand erect and confront the limitlessness of cosmic space. Through its symbolic impact the pyramid, man-made, merges and even competes with eternity. Only a few perforated Gothic spires — those shrieks in stone from man to sky — express a similar intense demand for penetration of the eternal by man's temporal existence, but the artistic means are radically different.

In one respect above all, the pyramids are unique. Human endeavor has never achieved such sublime simplicity in materializing man's irrepressible urge to **257 col** link his fate with eternity. It is this absolute simplicity and immaculate precision that merges mathematical logic with enigma and mystery.

THE PLANE AS A CONSTITUENT ELEMENT OF ARCHITECTURE

The standard form of the pyramid, the so-called true pyramid, consists of four equal isosceles triangles converging on a single point. The geometrical body formed by these four triangular planes reveals great wisdom of construction. Each of its sides is precisely oriented to the four cardinal points. The standard form was never changed.

No later period has had either the impulse or the courage to sacrifice everything else in order to express its urge toward eternity by the purest abstraction. The pyramids had no reliefs, no inscriptions, no detailing of any kind. Only smooth, dazzling planes, inaccessible to human approach. The power of the plane becomes sublime.

253 col These immense triangular surfaces were faced with highly polished limestone, **226** or even rose granite. Unlike the Mesopotamian ziggurats, they had no flights of steps. They repulsed the touch of mortals. Each was the abode of a dead king, who wandered from his eternally sealed chamber in the heart of the pyramid to travel over the sky by day and through the dangers of the underworld ocean by night.

Plane surfaces always form a background for the tectonic elements displayed upon them, and the gradations of the step pyramid represent a move toward the relentless planes of the Cheops pyramid. From the latter to the obelisks and pylons, the plane surface never ceased to be a constituent element of Egyptian architecture.

THE EXPERIMENTAL PHASE OF THE PYRAMID

In comparison with prehistoric and early historic Mesopotamian development, one could almost say that Egypt remained half asleep. Although in the First and Second Dynasties there are some indications of the imaginative strength that was to come, they are few and spread out over centuries. The decisive change occurred in the Third Dynasty.

The pyramids went through an experimental phase marked in every respect by gropings for form and structure. But measured against the slow, steady flow of normal Egyptian development, the transition to a standard form was attained with astounding speed, in little more than half a century. Development in our period proceeds at a hectic pace, yet it took the same time for iron construction to proceed from its beginning to the creation of the Eiffel Tower.

The transitional period started with the step pyramid of Zoser at the beginning **252 col** of the Third Dynasty and ended with the three pyramids of Sneferu at the beginning of the Fourth Dynasty. The certainty of form and construction acquired during this experimental phase led in one generation to the unsurpassed **257 col** perfection of the Cheops pyramid.

The step pyramid of Zoser, Third Dynasty

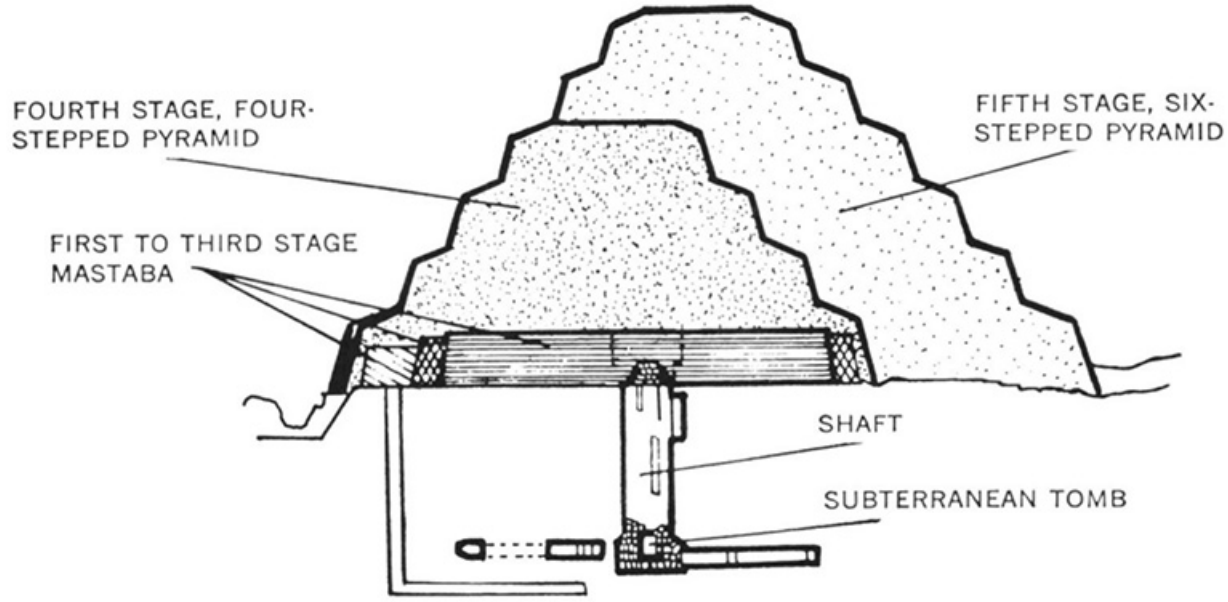
It is an enormous leap from the flat-topped mastaba tombs of the First and Second **272** Dynasties to the step pyramid of Zoser. The sixth stage of this pyramid attained a height of 204 feet. It was, in a way, man's first skyscraper, his first tall building. Its contemporaries must have held it in great awe. This awe persisted. Even the Saite kings carried out large-scale renovations of its interior, and graffiti made by pilgrims in the time of Ramesses II testify to a marveling reverence and a yearning for a renewal of early piety.

What gave the impetus for this unusual structure? It was the outcome of a belief in the godlike nature of the king, who after death would become one with the deity. The need to represent and to facilitate his doing so may

have brought about the urge that led to the pyramids, whose form is rooted in cosmic representation.

No other pyramid shows as impressively as Zoser's the emergence of the architectonic spirit. It could not have been created without the architectural genius of Imhotep, and even so, the concept of the step pyramid emerged only during the course of its construction.

ZOSER'S STEP PYRAMID: *This southern corner of the west face shows the differing sizes of blocks and courses which mark the transition from a mastaba to a step pyramid*



STEP PYRAMID: *East-west cross section. The high degree of experimentation is apparent, moving from the first mastaba, with its deep, symmetrically placed shaft, to a four-step and then a six-step pyramid, the shaft becoming increasingly eccentric. The final leap from a four-step pyramid demanded the greatest audacity. Drawing after Lauer*

Lauer distinguishes six stages — in his words, "six projects" (1936, pp. 12-26). The first three encompass the point of departure, the mastaba together with its enlargements. The last three deal with the actual pyramid, first with four steps, finally with six.

The mastaba, first to third stage

A mastaba was planned; but square, larger (about 200 ft. sq.) and higher (26 ft.) **left** than usual. One side was then extended and the whole refaced with Tura limestone. A second extension of the east side reinstated the square ground plan which formed the basis for the step pyramid.

The step pyramid, fourth to sixth stage

The fourth stage announces a change of plan. The whole is transformed into a four-stepped, square-based pyramid, constructed asymmetrically over the mastaba. In the fifth stage the decisive vertically is achieved. The center of the pyramid is shifted to the northwest and two more steps are added. The sixth stage consists in a slight enlargement of the height and volume and "is

just a simple modification of the casing" (Lauer, 1936, p. 21). The entire structure was, as usual, faced with Tura limestone.

Today its flanks lie exposed. In their hesitant but most ingenious masonry **left** one senses the experimental nature of the grandiose project. In this first stone architecture great caution governed the dimensions of the blocks, for the builders were still used to the size of clay brick, but no later method proved so successful in resisting time.

The subterranean tombs

The same experimentation appears in the underground burial chambers with their many ramifications.

At the bottom of a square shaft ninety-two feet deep, constructed during the erection of the pyramid, lay Zoser's burial chamber. Lauer found nothing but a black, mummified foot. From this burial chamber, passages lead out on all four sides. Their numerous branches contained the graves of members of the royal family, including that of an eight-year-old child.

Here, as in his southern tomb beside the enclosure wall of the complex, Zoser established an astonishing underground residence for his future life. In the scaled-down replicas of rooms from his palace at Memphis, the whole friendliness of his complex is revealed. Suddenly, some twenty-eight meters below ground, we are amid the joy of life. The tile wall coverings simulate reed matting, **266** just as they did in the southern tomb, and the lunettes above them contain **267** delicate reliefs, of the king running his ritual course at the Heb-Sed festival. Their quality can be compared with the wooden reliefs found in the tomb of **169** Hesy-ra, one of Zoser's court officials.

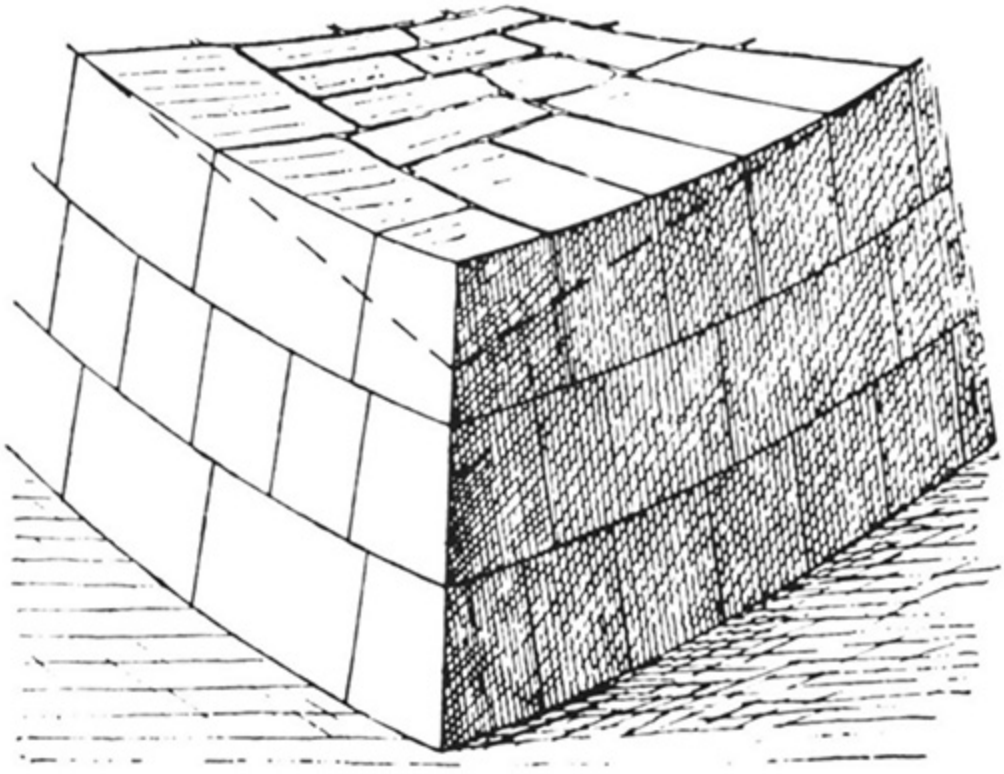
The dead king retained an intimate closeness to daily life, even in the depths of the earth.

This naïve projection of an earthly existence into the beyond, this demand for an eternal present which pervades the entire Zoser complex, was never to be repeated. The overpowering rituals of the sun cult supervened. This cult was already present in the Zoser complex, but there it formed only part of the whole: it was bound up with the realm of the Ka and with the renewal of power at the Heb-Sed festival. In the Fourth Dynasty, the intimate relationship of death to life was replaced by an

elaborate ritual to which the dead king was submitted by the priesthood. It was this ritual that determined the program of the later pyramid complexes.

An unfinished step pyramid of the Third Dynasty

Not far from the southwest corner of Zoser's complex, Zakaria Goneim, Chief Inspector of Antiquities at Saqqara, found an unfinished pyramid of King Sekhemkhet, one of Zoser's successors. Between 1951 and 1955 Goneim excavated parts **310** of this never-completed complex. The enclosure wall was paneled like that of Zoser, and the pyramid also followed his system.



CORNER OF A STEP PYRAMID: *Schematic drawing showing how a line bisecting the corners is avoided by tilting the courses as indicated by the dotted line. From Lauer*

CORNER OF UNFINISHED PYRAMID: *Here the slight uptilting of the courses is readily apparent. Pyramid of Sekhemkhet, Saqqara. Third Dynasty*

CORNER OF UNFINISHED PYRAMID *from above*

300, 301 During the period of excavation one could learn much about how builders solved the problem of constructing pyramid corners.

The most impressive part of this unfinished pyramid was the monumental entrance**right** to its substructure, between two high retaining walls cut deep into the rock bed. In February 1954, I was living as Goneim's guest at Saqqara. One evening he stormed in full of excitement: "The entrance is untouched!" And it was. But when, months later, they penetrated the innermost chamber and opened the sealed alabaster sarcophagus, they found it empty. This disappointment, together with other misfortunes both during and after his excavation of this buried pyramid,

may have contributed to Goneim's early death. In autumn 1958 he was found drowned in the Nile.

The three pyramids of Sneferu

Sneferu, founder of the Fourth Dynasty, was a great experimenter in pyramid building. He built three pyramids for himself, and each is different. Probably his first was the one at Medum, which had been started by Huni, the last king of the Third Dynasty. This pyramid stands in complete isolation some forty-five miles **254 col** south of Giza and thirty south of Dahshur, where he built the other two close together.

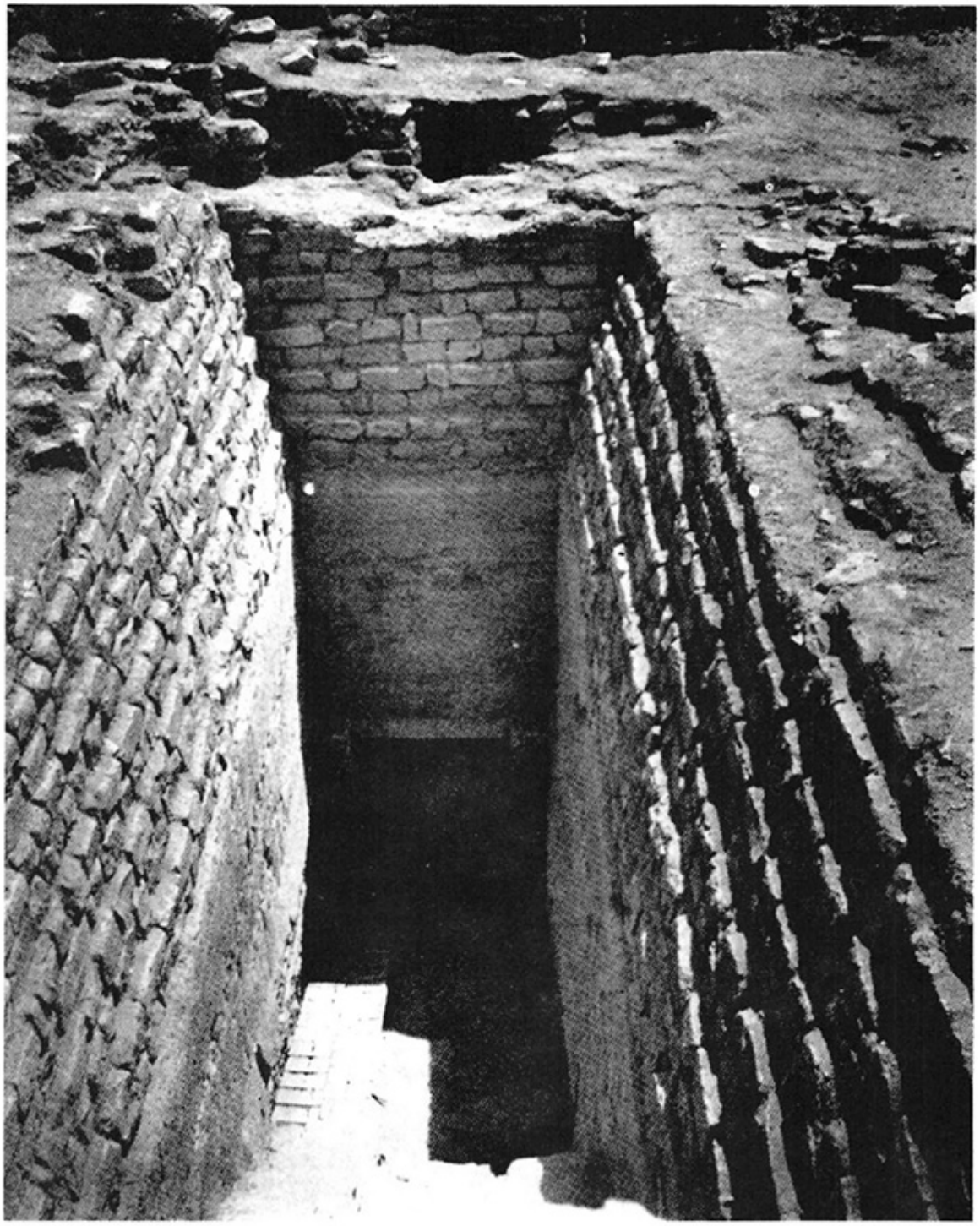
Medum

The pyramid of Medum is a forerunner of the standard form, though it passes **305** through two step-pyramid stages (the first with seven steps, the second with eight) before arriving at the smooth unbroken surfaces of the true pyramid. Its badly damaged third and fourth steps still loom above the waste of debris and desert sand, and some fragments of its smooth final surface remain. It had once presented the aspect, unusual for Egypt, of a great tower with stepped layers rising at an angle of seventy-five degrees. Like Zoser's step pyramid, that at Medum was built in several stages, though its original center was never shifted.

In the first, seven-stepped stage, there was a nucleus and "six thick coatings of masonry, diminishing in height from the centre outwards. . . . Each of the coatings, which inclined inwards at an angle of about *75*°, consisted of a core of local stone cased from top to bottom with Tura limestone" (Edwards, 1961, pp. 65-66). The smooth limestone cladding indicates that at first this was considered the final solution.

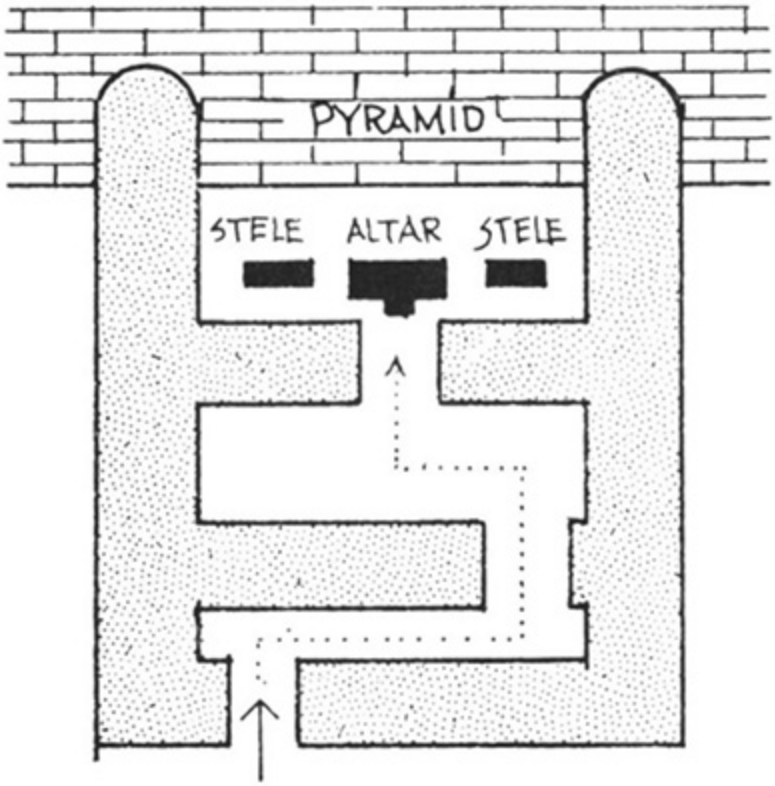
UNTOUCHED ENTRANCE TO UNFINISHED PYRAMID, *blocked by a roughly built wall*

OPENED ENTRANCE TO UNFINISHED PYRAMID



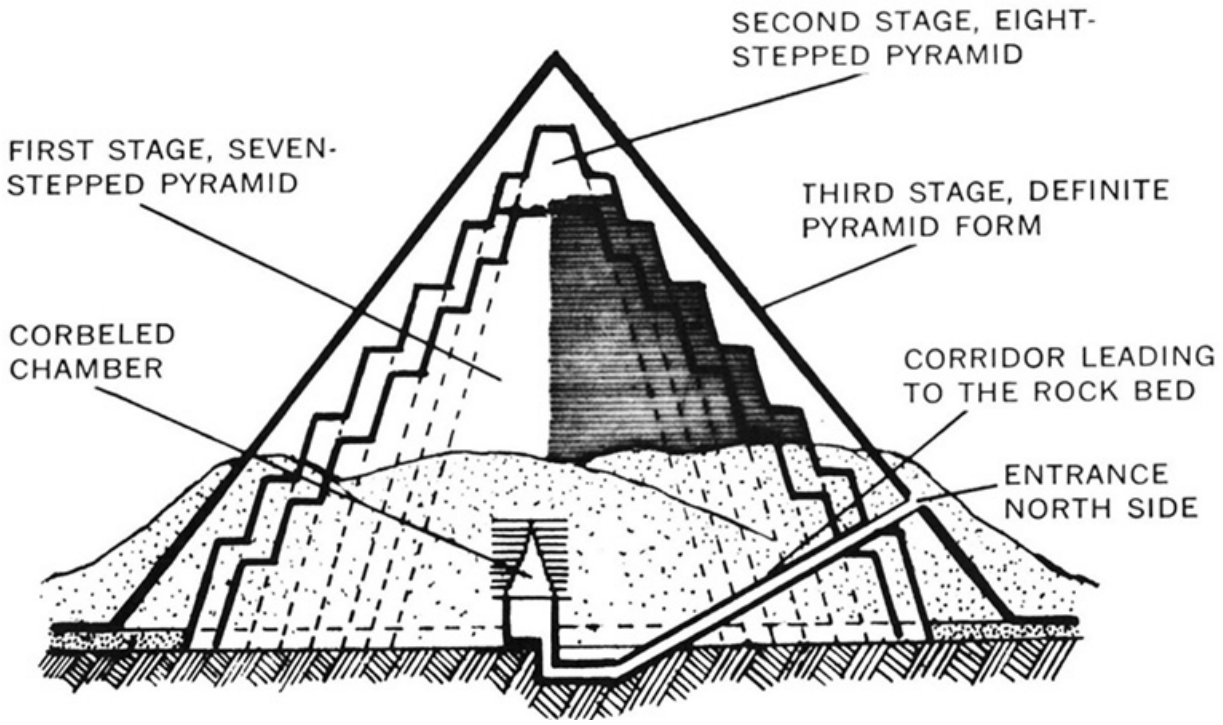
ENTRANCE TO UNFINISHED PYRAMID, *showing the high, carefully built, and slightly stepped retaining walls*

STELES BEFORE MORTUARY TEMPLE, MEDUM: *These two roundheaded steles stand before a small mortuary temple attached to the east face of the pyramid. The offering table is buried under the rubble filling in the little court before the temple*



GROUND PLAN OF MORTUARY TEMPLE, MEDUM: *The asymmetric entrance from the temple forecourt is protected by a couloir à chicane. Drawing after Flinders Petrie*

EAST FACE OF PYRAMID OF MEDUM: *Only a few of the towering steps of the pyramid remain. The two steles from fig. 183 can just be seen rising above the roof of the nine-foot-high mortuary temple. The simplicity of Medum's small temple court with its offering table and two steles was maintained in the great pyramids at Giza, though fronted by the new monumental courts of the offering temple*



PYRAMID OF MEDUM: *North-south Cross Section. Drawing after Flinders Petrie*

In the second, eight-stepped stage, the height seems to have been considered **305** insufficient. “The top step was raised by about 45 feet and each successive step was built up to a level somewhat higher than the one above it in the previous design” (p. ***66).*** The construction was the same. Rough blocks were placed on the smooth surface of the steps, and the whole was again encased in limestone.

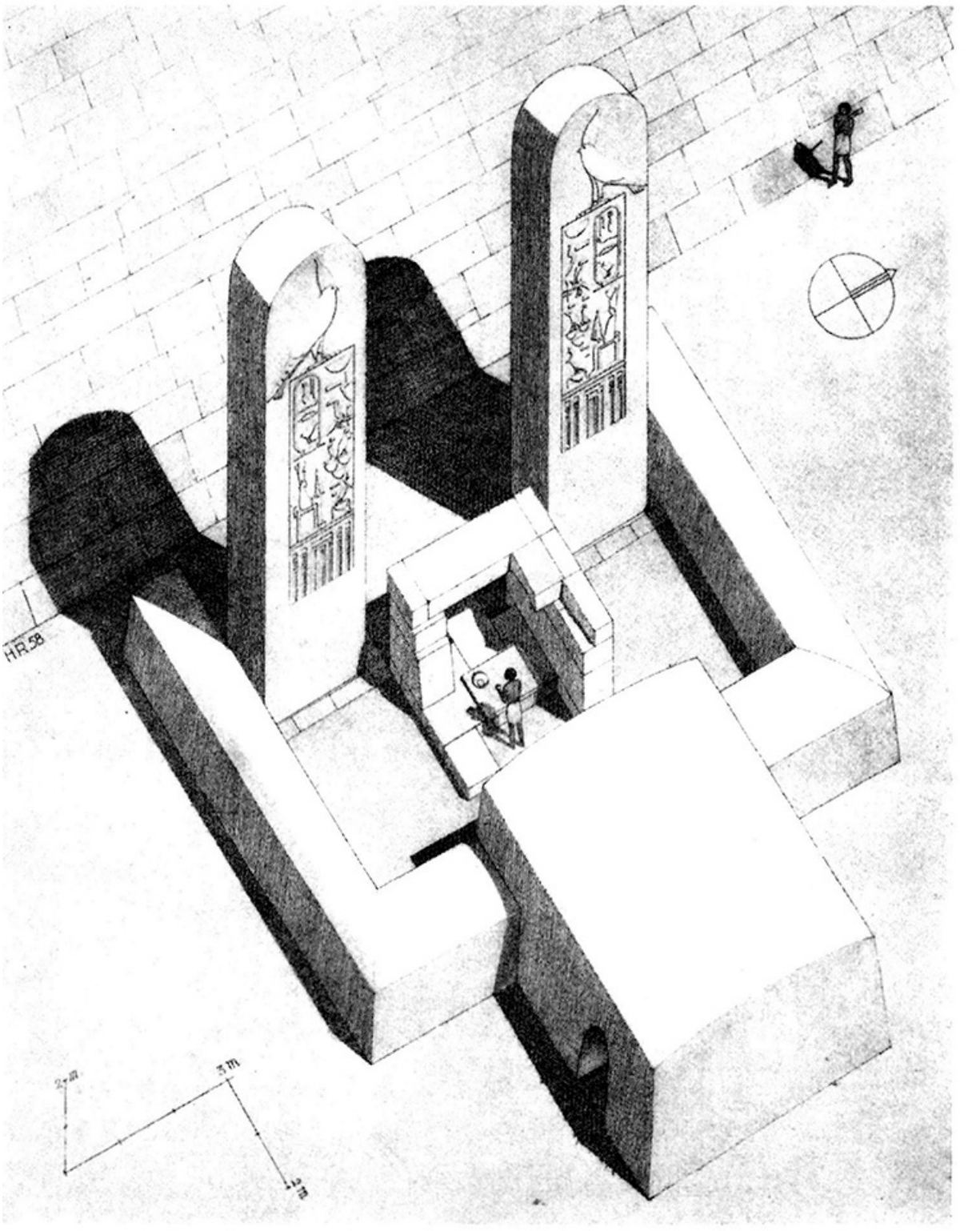
In the third stage, the polished steps were again hidden by rough-hewn blocks and, as a final procedure, an uninterrupted plane surface was created on all four sides by enclosing the whole within a polished stone casing. This led to the definitive pyramid form. It cannot be ascertained whether the stages followed immediately upon one another or whether there were interruptions. Probably the latter. It is even possible that there was an exchange of experience between the builders of the pyramids of Medum and Dahshur. "Varille noticed that one finds the same carrier’s marks upon blocks of the Medum pyramid and upon the blocks of the rhomboidal pyramid [the bent pyramid], and he concludes that the same team worked on the two monuments” (Vandier, 1954, II, p. 15).

It is tempting to explain the new form of the pyramid with its smooth triangular surfaces as the outcome of technical innovations, but this is not

sufficient. **345** The standard form grew from new ritualistic needs, as A. Moret and others have long recognized. All three Sneferu pyramids differ basically from Zoser's, and the difference corresponds to a change in program. Gone forever are the architectural representations of daily earthly life. The smiling aspect of the Zoser complex has given place to the stern ritual necessary to transform the dead king into a living god. The essential architectonic organization (which we will discuss **320** later in this section) is here represented on the smallest scale — valley temple, causeway, mortuary temple — before reaching the final sepulchral chamber within the pyramid. We know scarcely anything of the valley temple. The causeway can just be recognized. Only the small mortuary temple remains, attached **304, 305** to the center of the east face of the pyramid. It is little larger than one of the Heb-Sed chapels of Zoser's complex.

Dahshur: the bent pyramid

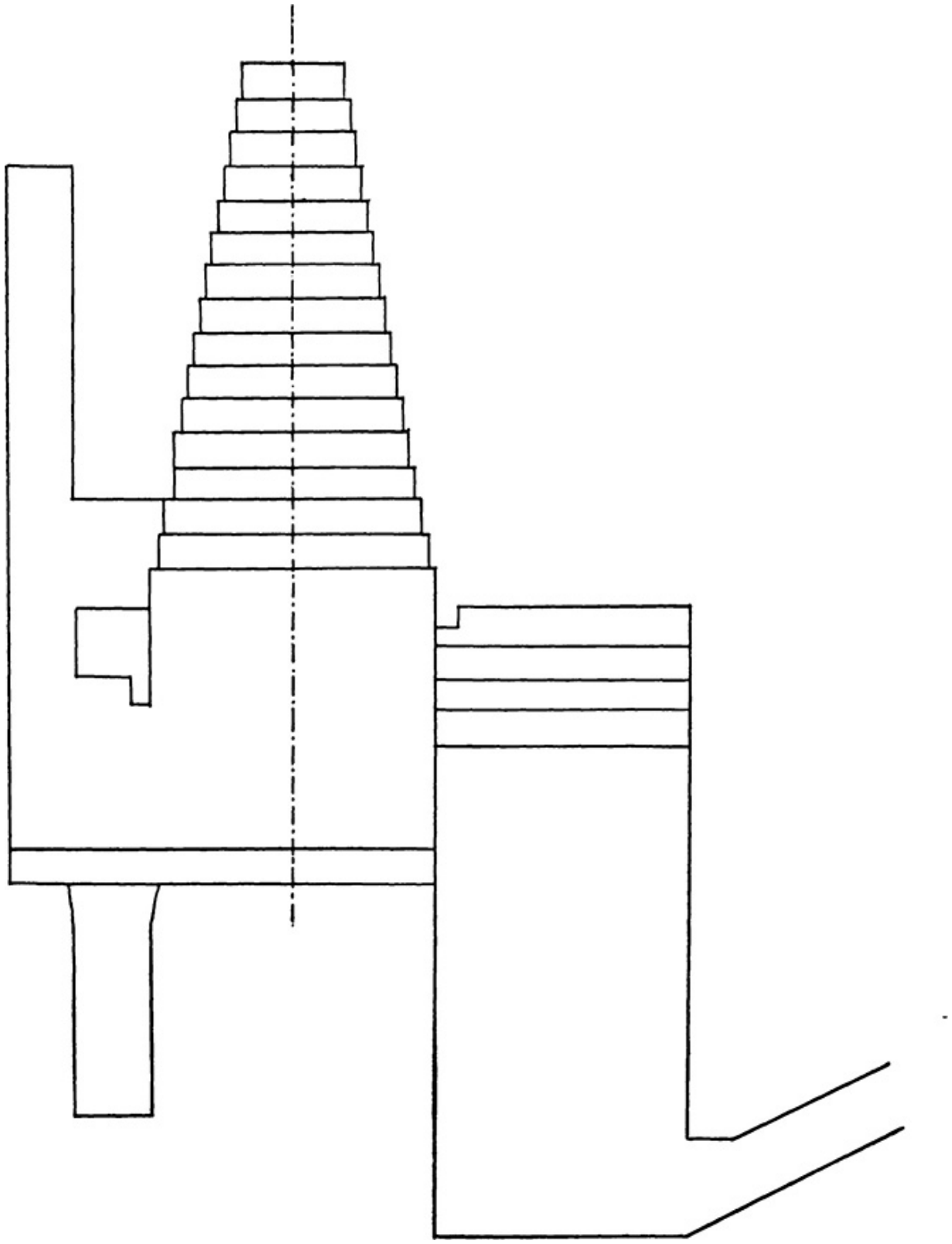
253 col The first of the two pyramids that Sneferu built at Dahshur has a steep slope in its lower part — 54 degrees. The angle of the upper part diminishes to 43 degrees. The total height was about 336 feet. One explanation of the "bend" was that the pyramid had been "finished in haste," and it was confirmed in 1839 "that the stones in the upper part were laid with less care than those below" (Edwards, 1961, p. 71). But "Varille believes it would be preferable to call it the 'double pyramid' or "the pyramid with two slopes.' He does not believe the double slope is the result of the architect's irresolution. For him it corresponds to the characteristic of duality which is expressed by the pyramid itself (it contains two burial chambers), and is only the materialization, in architectural terms, of a symbolic idea" (Vandier, 1954, II, p. 16). This theory is reinforced by the low walls of the valley temple, which show a similar bend.



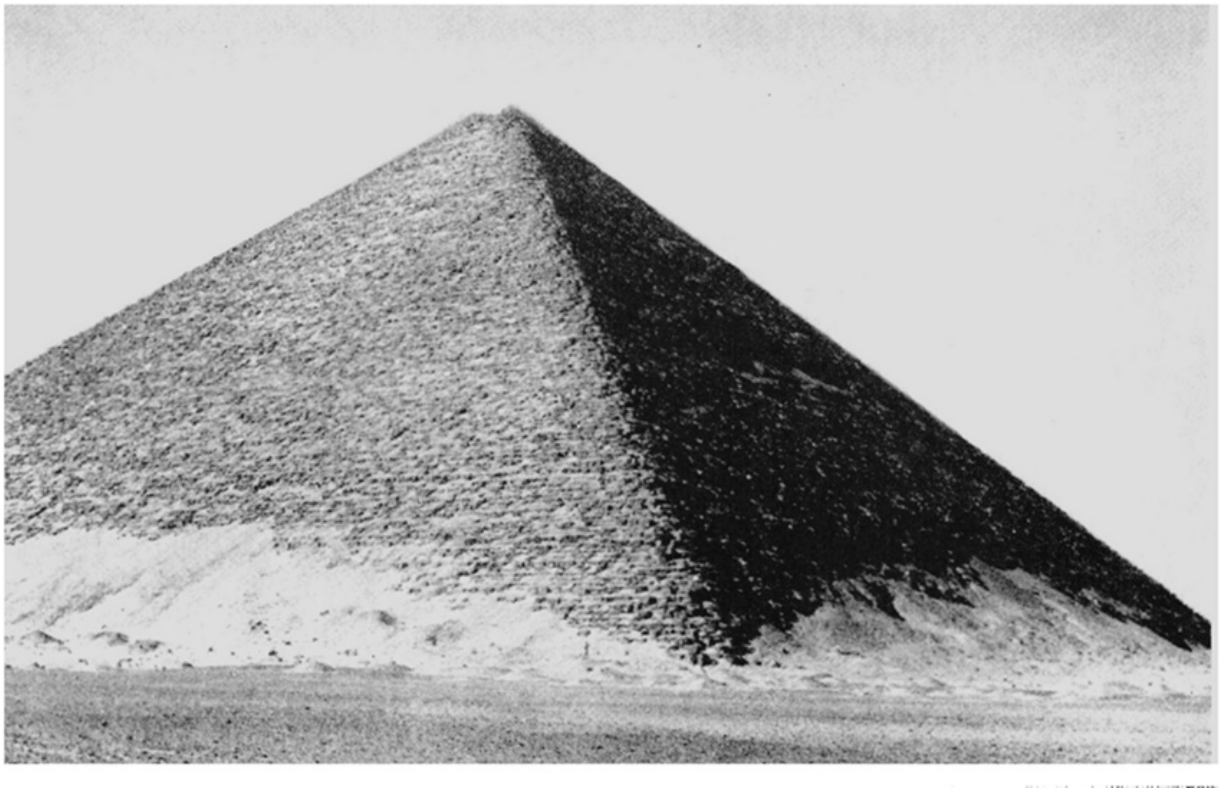
OFFERING TEMPLE OF BENT PYRAMID, *Dahshur: Rieke's careful reconstruction gives a good insight into the simple form of the offering temple at the beginning of the Fourth Dynasty. The*

elements are the same as at Medum: entrance covered, altar in the open and between two steles placed directly before the pyramid. From Fakhry

CORBELED VAULT WITHIN BENT PYRAMID: *One of the high corbeled vaults of the inner chambers of this pyramid,* H. *57 feet, each course projecting 15 cm. From Fakhry*



BENT PYRAMID: *East-west section through lower chamber, showing its corbeled vaulting. The sides of this pyramid have two different angles of slope* (*cf. col. pl. VII*). *Drawing based on Fakhry*



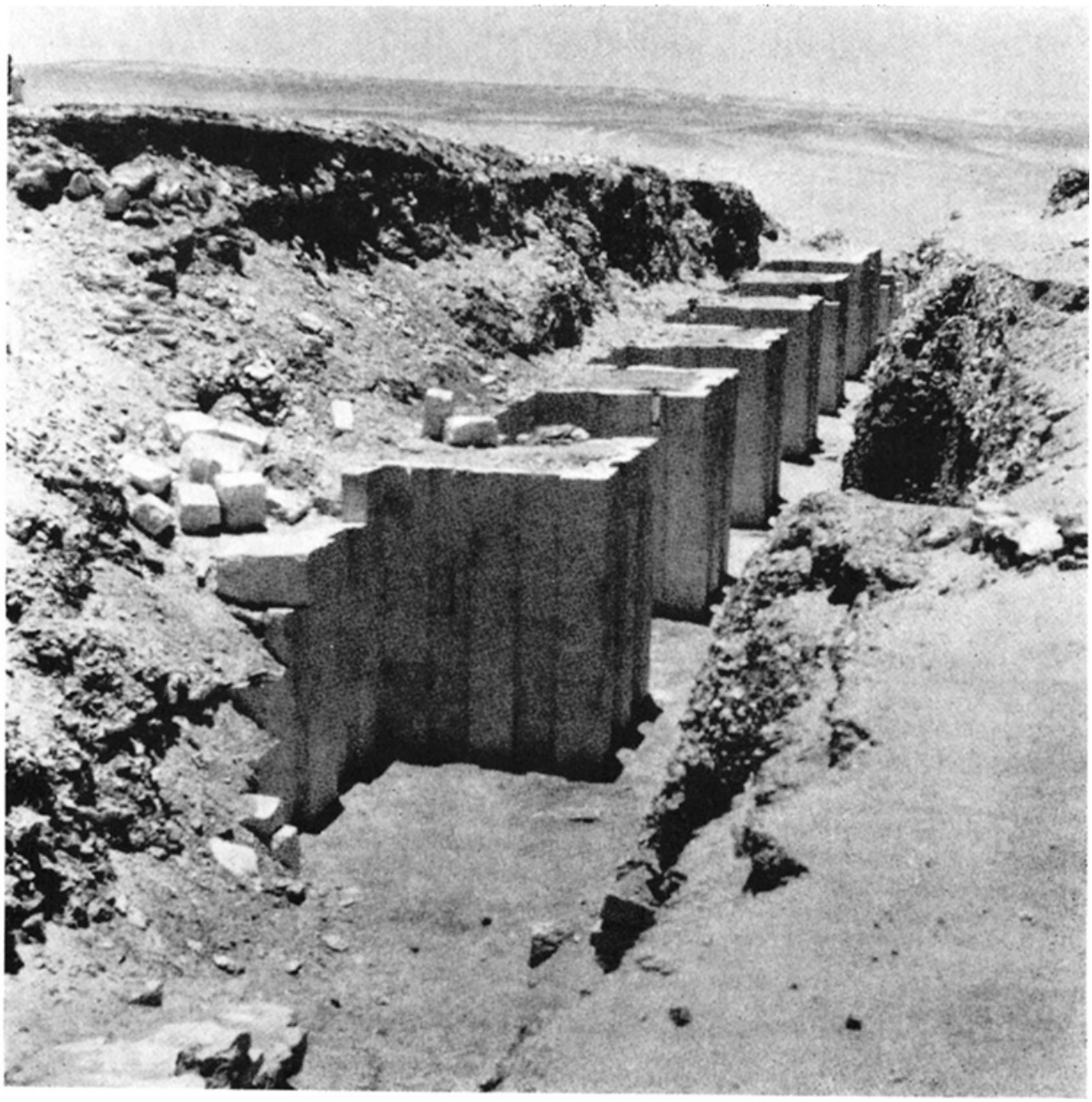
SNEFERU'S NORTHERN PYRAMID: *The first true pyramid, near his earlier bent pyramid (cf col. pl. IX). No facing stones are left upon its sides and the corners are rounded. Structure of red sandstone from a local quarry. Blocks of considerable dimensions. The base covers as much ground as that of Cheops' pyramid*

The bent pyramid has not only two different slopes; it also has two independent chambers. One is entered, as usual, from the center of the north side of the pyramid. The other is entered from the west side — which was never repeated. The downward-sloping corridor from the north entrance ends in a rectangular chamber fifty-seven feet high. This height is achieved by an astonishingly audacious corbeled construction: "Every course projects 15 cms on all the four sides" **left** (Fakhry, 1959, p. 47). Thus we can see that even in a period of searching for the standard form of the pyramid, builders had skill and courage to tackle impressive **318** vaulting problems. The magnificent Grand Gallery of the Cheops pyramid, leading up to the burial chamber, also employed corbeling along its two parallel walls.

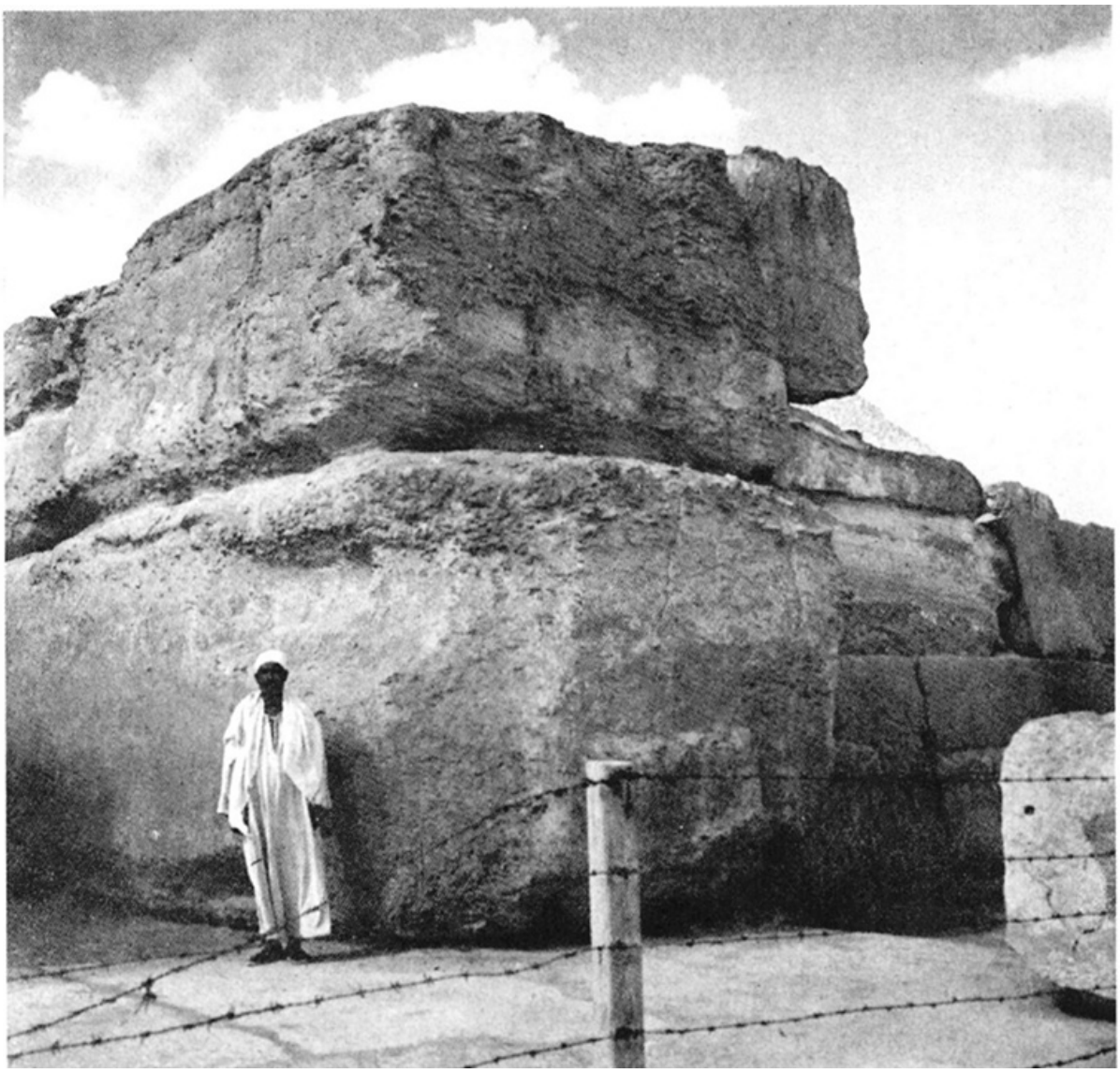
The valley temple of the bent pyramid has only recently been excavated by Ahmed Fakhry, with reconstruction by Ricke (ibid., pp. 106-17). Here to

some extent we can study the emerging pyramid complex: valley temple, causeway, offering temple, pyramid.

The dimensions of the ceremonial areas are larger than those at Medum. **307** Though the offering temple, which leans against the pyramid, is only slightly larger, the valley temple already has a highly developed ground plan: a roofed anteroom, a spacious inner court with two rows of five pillars standing before six niches containing statues of the king and carved in one piece with the walls of the niches.



ENCLOSURE WALL OF UNFINISHED PYRAMID: *Its blocks, though small* (*50 cm*.), *are already double the size of those used in the Zoser complex. Saqqara, end of Third Dynasty*



GIGANTIC BLOCKS *of so-called temple of the Sphinx, near Chephren's valley temple: Within a single century the Egyptians learned how to handle stone blocks, from small bricks to megalithic stones weighing thirty tons. Fourth Dynasty*

Dahshur: the first "true pyramid"

Upon the desert plateau, about half a mile north of the bent pyramid, Sneferu built the first pyramid to achieve the standard form. It is now often called the red pyramid after the color of its blocks, which came from a local quarry. Originally, like the others, it was covered with a smooth facing of Tura limestone. Today **309** its corners appear rounded. The area around it has not been completely excavated.

Its slope (43° 30') is almost the same as that of the upper part of the bent pyramid. Its proportions appear squat. The slope of the Cheops pyramid is only **257 col** eight degrees steeper, but how much greater upward thrust results from that small increase in the angle of inclination!

Only in Dahshur, undisturbed by tourists or the debris left by excavations, can we appreciate the emanating power of the pyramids. Here in the desert the earth appears as though seen from astronomical heights: intangible, immaterial. Here **254 col** there is nothing else. The two pyramids resting upon an endless plain confront only the cosmos. The heavens arch over them like the figure of the goddess Nut. Everything earthly has fallen away and man grasps what it means to stand before eternity.

On the experimental phase

Only rarely in the history of architecture is it possible to take so close a look at the creation of a monumental form as it is in these mighty constructions. The process can be discerned in every aspect: extension of experience in technical knowledge, in ritualistic organization, in the symbolic content of the newly arisen form.

Growing experience in the handling of stone

We find ourselves in the midst of technical advances without parallel in Egyptian history. The new problems of using stone as a building material were solved with astonishing quickness — within a single century. Dimensions of the stone blocks grew ever larger, from the small, twenty-five-centimeter ashlars of **331** Zoser's complex to the large limestone blocks of the Giza pyramids, and up to the megalithic boulders of eighteen to thirty tons that compose the so-called **311** temple of the Sphinx near Chephren's valley temple.

253 col Large areas of the casing of the bent pyramid at Dahshur still remain; they show that builders even then knew how to construct these immense sloping planes solidly and firmly. The polished surfaces are composed of a mosaic of wedge-shaped blocks, each about two meters long, driven into the body of the pyramid. One place where the surface is damaged looks like a glacier crevasse, and we can see from it the marvelous instinct for craftsmanship that made possible such daring experiments.

Even more impressive than the craftsmanship of the period is the engineering knowledge that made possible the stable construction of the steeply sloping sides of the pyramids. The courses are built independently, at a steep angle, so as to counteract disruptive forces such as expanding joints. As Auguste Choisy observed in *L'Art de bâtir chez les Égyptiens (*1904*),* the independent sloping layers of the pyramid support one another. Probably Imhotep invented **298** these inclined courses when he changed the earlier mastaba into Zoser's step pyramid. Mastabas were built with the traditional horizontal courses, but in the step pyramid the courses followed the angle of the slope (Lauer, 1936, I, pp. 17-18). Where two courses meet at a right angle, a line bisecting the angle must be avoided. This was managed by tilting the courses slightly as they approached the corners. The two abutting courses could thus be joined upon a curved bed without splitting the joint, as Lauer shows in his drawing. The **300** system can be observed best in the unfinished pyramid (Goneim, 1956, pp. 52-54). Our photograph shows the slight uptilt of the corner blocks as well as **301** the inward curve of the entire course.

CONSTRUCTION FOR ETERNITY

Pyramids are fundamentally different from mountain masses. Their sloping sides are constructed in independent layers, like the annular rings of a tree translated into an abstract engineering technique.

It is in Zoser's step pyramid that we can first trace the growing experience **298** in structuring with stone. The static principle by which solidity could be guaranteed this tall structure came about through the newly invented superimposition of sloping walls, which demanded highly precise craftsmanship.

The pyramids were constructed with an astonishing insight into the laws of statics and of the movement of forces. Volumes piled up like heaps of rubble cannot resist earthquakes or the ravages of time, and the pyramids of later dynasties, which did not follow the wise principles of the early times, have crumbled and lost their form.

This play of forces within the pyramid has been analyzed by a Swiss engineer, **317 H .** Rössler (1952). He explains that the great resistance of the pyramids is only partly due to their enormous dead weight. Much comes from fortifying forces whose strength increases with height. One of Rössler’s diagrams indicates how the horizontal thrusts at every level are directed toward the central core to reinforce the structure. Because of the slope of the walls, thirty-five per cent of the vertical thrusts are transmitted to the inner core, reaching from base to summit, the remainder being carried down by gravity into the rock bed. Thus the stability of a pyramid increases with its height. Rössler compares the pyramid's series of almost independent sloping layers with the expansion joints of concrete construction.

We do not here enter into a discussion of the way the pyramids were erected (Lauer, 1948, pp. 161-85), but it may be noted that the principal theory, since the time of Borchardt (1928), has been that there were ramps running perpendicular to the face of the pyramid. I. E. S. Edwards suggests that construction ramps may have run parallel to the sides rather than perpendicular to them (1961, p. 221), and, in 1953-54, Goneim records: “On three sides of the structure I found traces of what are almost certainly

construction embankments. . . . Had the pyramid been completed, the ramp and embankments would gradually have been removed as the casing-stones were put on" (1956, p. 71).

Recently both Rössler and the Egyptologist Dows Dunham have suggested that the pyramid itself provided its own working platform. Dunham also points out that the work was much more complicated than a modern engineer might assume, since “there is no evidence as early as the Fourth Dynasty for any knowledge of the wheel, the pulley or the derrick. . . . We also know that the Egyptians of the Pyramid Age did not have draught animals and that the power used must needs be that of men hauling on ropes” (1956, p. 161). He discards the notion of perpendicular ramps as impractical and considers construction ramps encircling the body of the pyramid and growing simultaneously with it “a plausible suggestion” (p. 165). This suggestion is incorporated in a model (Museum of Science, Boston) of the Mycerinus pyramid under construction.

The great pyramid of Cheops, Fourth Dynasty

Unsurpassed in height, size, and excellence of construction, the Cheops pyramid **257 col** has almost become a symbol for the whole of Egyptian architecture. Since it is the best known of all the pyramids, we will say little about it here.

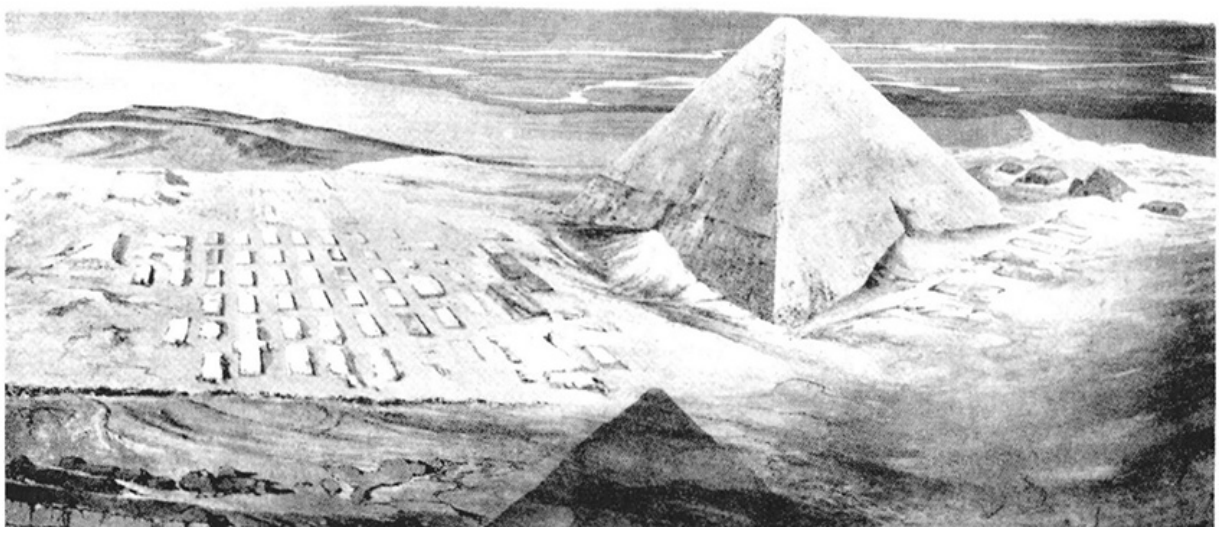
It is exactly square, each side 756 feet; height 481.4 feet; slope *51°52*'. No hesitation whatsoever existed with regard to its exterior form. All was conceived at a single stroke. With this pyramid the experimental phase is over. The precision of its orientation to the four cardinal points is stupendous — it differs no more than 3'6" from the exact north-south orientation (Lauer, 1948, p. 186).

The interior planning was changed three times. But the entrance corridor **316** on the north side, starting about fifty-five feet above ground level and sloping downward at an angle of 26° 31' 23", remained unaltered. It has been suggested that this angle, prolonged toward the sky, met the polestar at the time the pyramid was constructed.

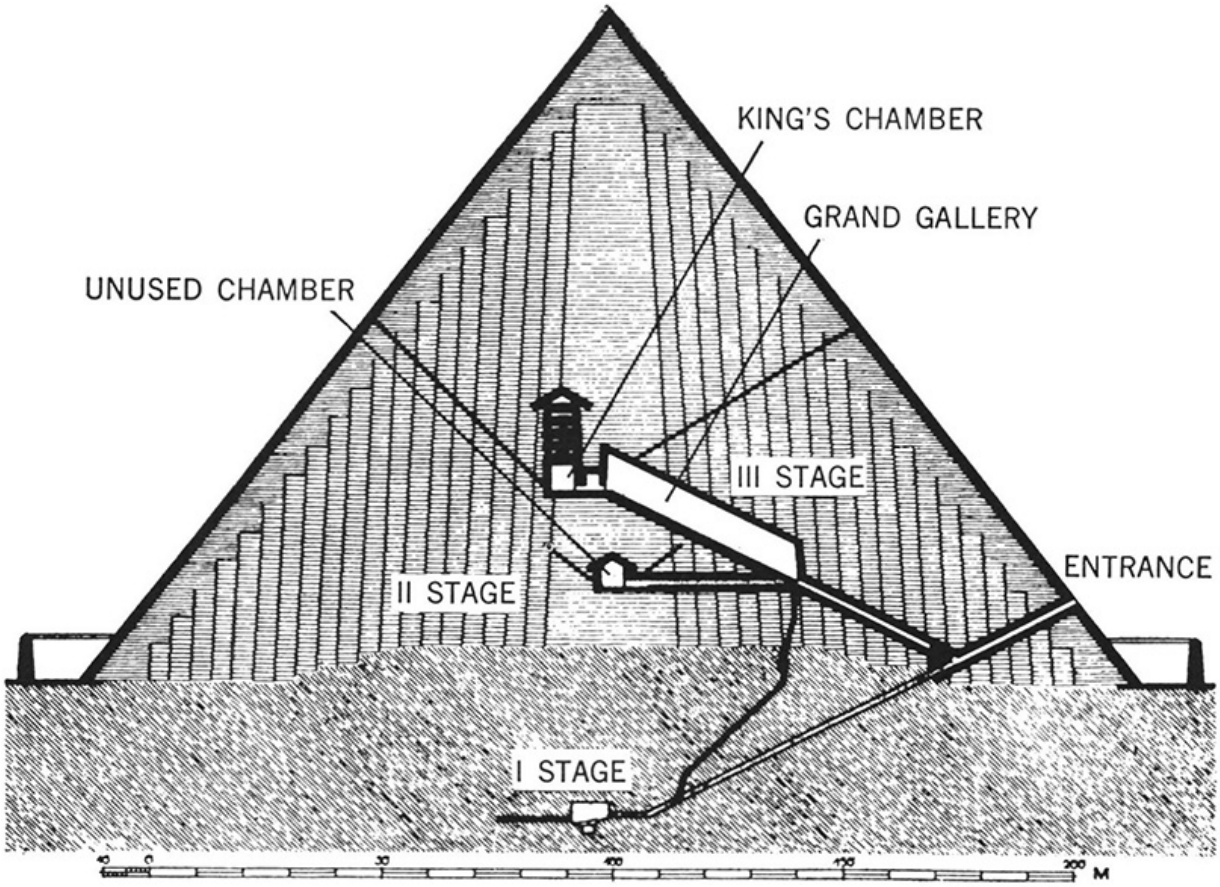
First phase: the entrance corridor continued straight on, boring deep down into the rock bed — a system already outmoded — terminating in a never-used chamber lying deep under the vertical axis of the pyramid.

Second phase: a change in direction. A most ingeniously concealed passage led upward from the entrance corridor, turned onto a horizontal level, and ended in a chamber with a low, corbeled roof, similar to that in the Medum pyramid.

Third phase: the final change. The ascending corridor of the second phase now continued on, unbroken, straight into the heart of the pyramid. Up to this point of juncture the corridor is less than a man's height. One has to bend low to pass along it. Then, suddenly, the cramped passageway opens up into the **318** Grand Gallery, 153 feet long and 28 feet high. Its walls, composed of enormous blocks of highly polished limestone, rise vertically in seven sections, each slightly corbeled forward. Sneferu's experimental rectangular chamber fifty-seven **308** feet high in the bent pyramid at Dahshur is here continued on a monumental scale.



BIRD'S-EYE VIEW OF CHEOPS' PYRAMID: *Color lithograph by Karl Richard Lepsius, ca. 1850. From Lepsius*



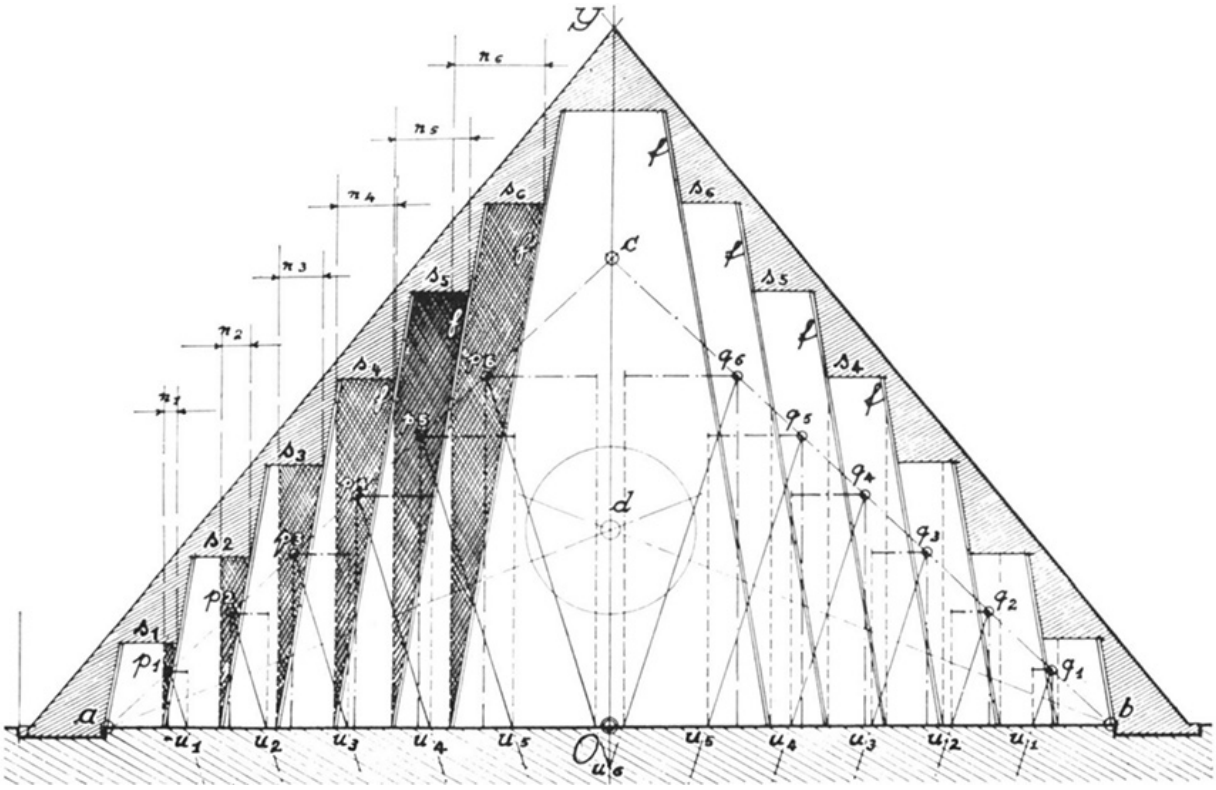
CHEOPS' PYRAMID: *North-south cross section showing the changes made in its interior plans. Drawing after Borchardt*

The jointing in this gallery is so fine that an Arab historian remarked that neither a needle nor even a hair can be inserted into the joints of the stones. To construct the enormous body of the pyramid the Egyptians used the precision of a watchmaker. The large blocks that form the gallery walls could not have been brought in along the low corridor leading from the pyramid entrance. Borchardt proved that the Grand Gallery was constructed during the process of erecting the pyramid (1932, pp. 5-12).

The Grand Gallery was used once only: when the mummy of the king, lying in his wooden coffin, was carried along it to his funeral chamber. The marvelous great boat found in 1954, untouched, on the south side of this pyramid, was also probably used but once: to bear the body of the dead king from his royal residence to the valley temple.

If ever proof were needed that this architecture — sealed forever, inaccessible to all human beings once the funeral rites were ended — was

created as an offering to invisible powers, whether Ka or god-king, it is here.

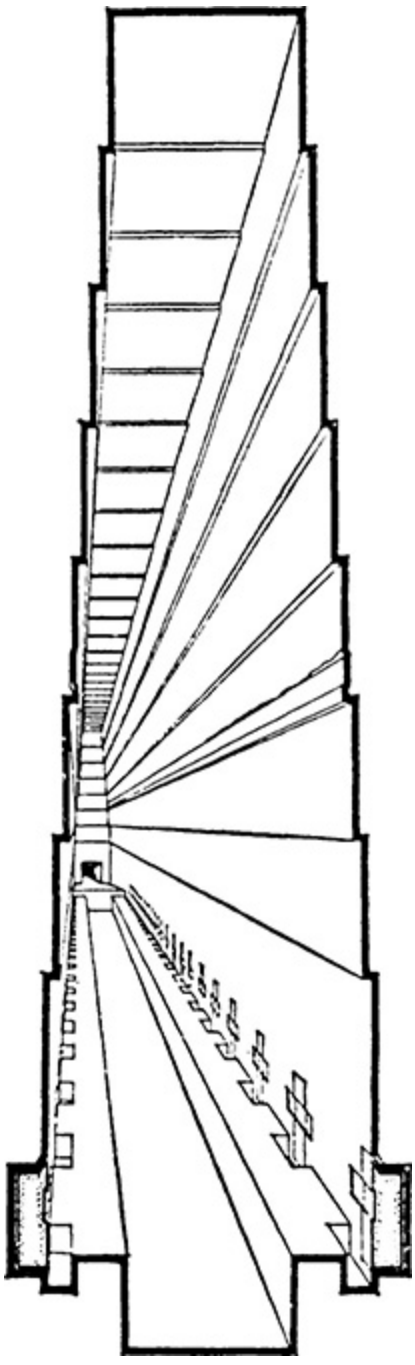


THE INTERIOR DYNAMICS OF A PYRAMID: *H. Rössler, a Swiss engineer, calculated that the horizontal thrusts are directed toward the central core at every level, and thus reinforce the stability of the structure. Thirty-five per cent of the vertical thrusts are transmitted to the inner core, reaching from summit to base. Only the remainder of these thrusts have to be carried down into the rock bed. Stability increases with the height of the pyramid. From Rössler*

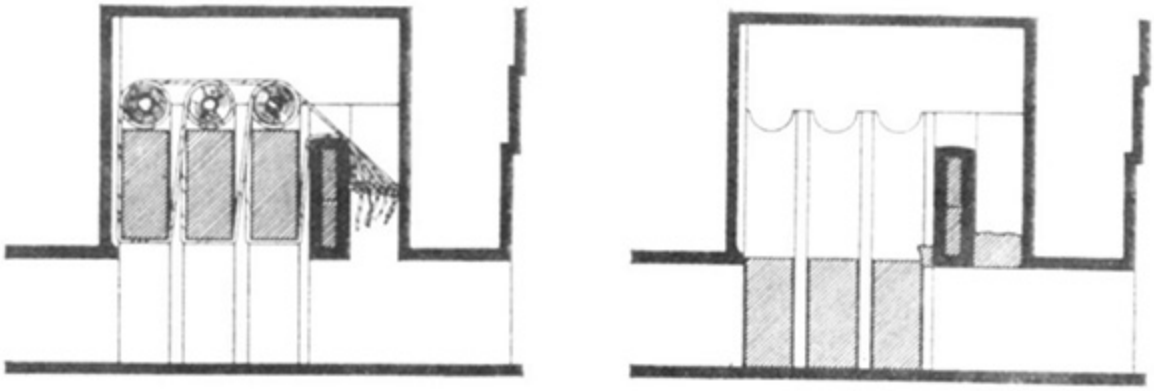
At the end of the Grand Gallery is a high step. Beyond it a low passage leads **below** into a kind of antechamber, once protected by three granite portcullises, and thence into the granite-lined funeral chamber of the king, forty meters (some 130 ft.) above ground level. His extremely simple sarcophagus, without any inscriptions, had been set in place, near the northwest corner of the chamber, during construction of the pyramid. Its cover has never been found, and the sarcophagus was empty.

The walls of this funeral chamber arc oriented to the cardinal points. Its dimensions (34' 4" x 17' 2") as well as those of the sarcophagus have been scrupulously analyzed for symbolic implications. The extreme precision of its measurements and the exact north-south alignment has always given the

Cheops pyramid a special position, and some of its implications will be discussed below (pp. 472ff).



THREE PORTCULLISES, CHEOPS' PYRAMID: *At end of Grand Gallery. These protected the entrance to the King's Chamber, which contained his sarcophagus. From Borchardt*



THE GRAND GALLERY, CHEOPS' PYRAMID, *leading to the Kings Chamber:* L. *153 feet,* H. *28 feet. Corbeled vault with seven projecting courses. From Edwards*

THE LATER PYRAMIDS

The abstract form of the pyramid never vanished from Egyptian memory nor from the vocabulary of architecture. But the enthusiasm which engendered the construction of pyramids did not endure. The perfection they attained in the Fourth Dynasty remains unique — like the Parthenon.

It is not our task to follow their later fate in detail, for it has been recorded fully by others (Lauer, 1948, pp. 86 ff.; Vandier, 1954, II, pp. 101-209; Edwards, 1961, pp. 133-204). A few words will suffice.

Even the Fifth Dynasty pyramids were impermanent. That built in Saqqara by the first king, Weserkaf, from rough blocks, is now but a heap of rubble. Those of his immediate followers, Sahura, Neferirkara, Ne-user-ra, are in little better condition. They were built as a modest triad in Abusir, a few miles from Saqqara. Their heights ranged between fifty and seventy meters.

In the Middle Kingdom, the Twelfth Dynasty kings removed their capital from Thebes and established it again in the north. Their brick pyramids (in Dahshur, Lisht, Lahun) were erected upon a cross network of retaining walls. These did not hold their form, and little is left of them. The beautiful pvramidion **448** of Amenemhat III, of indestructible basalt, is the only complete capstone of a pyramid extant. Like the pectorals and other jewelry found in the tombs, it shows the highly refined craftsmanship of the period.

Much more significant than these offshoots is the mortuary temple, in the Theban necropolis, of Mentuhotep, founder of the Middle Kingdom. Here the **410** pyramidal form was used to crown a new building type; it no longer indicated the tomb center, beneath which lay the actual grave.

During the decay of the monarchy and the rising influence of the feudal lords, royal burial customs changed. Rulers adopted the type of rock-tomb, cut directly **403 ff** into the cliff face, that had been used by the governors of Elephantine during the **406** Sixth Dynasty. Mentuhotep gave this type its monumental form. The pyramid lost its exclusive quality when it ceased to be solely a prerogative of the king.

It often happens that in remote places on the fringes of civilization age-old habits are kept alive or are redeveloped from the beginning. This occurred with the pyramid. In Nubia, between the Fourth and Fifth Cataracts, Ethiopian rulers erected about one hundred and eighty pyramids between 750 B.C. and A.D. 350. These repeated the development from simple gravel mound to pyramid.

Ethiopian kings ruled Egypt for a century. Beneath the first of these southernmost pyramids lay Piankhy, founder of the Twenty-fifth Dynasty. Dunham has carefully traced the development of these diminutive pyramids (1950), but they have nothing in common with the sublime heights of their Egyptian forebears. They sit huddled together like the huts of an African village.

THE PYRAMID COMPLEX

Rites and architectural form

The appearance of stone architecture is linked to another innovation: setting an architectural stage for a highly elaborated ritual. The transposition of symbol and rite into architectural form is never absent from the history of architecture. But in no later period has it so complicated a symbolic content as here in this initial phase.

Every detail of pyramid planning, of the shapes and proportions of the spaces, their number and placement, had symbolic and ritualistic significance. This is **374** an enormous stride in development from the reed temples of the First Dynasty, **204** and even from the Mesopotamian temples, which always retained their original simple organization.

The theme of the whole complex was the stages that had to be gone through to transform the dead king from a still earthly, transient being into an eternal deity. The sequence was approximately as follows: the dead body was cleansed and then prepared for eternity (mummified). These proceedings gave rise to a valley temple on the borders of vegetation, isolated from yet connected to the fertile land. But the king was more than a cadaver. His ties with Upper and Lower Egypt and the assurance of his continued existence were given expression in the form and structure of the valley temple, by means of whole rows of tomb statues, etc.

The location of the desert plateau, about one hundred feet higher than the Nile valley, led to the creation of a causeway up which the mummy of the king was borne to its last station, the pyramid temple, situated on the east side of the pyramid. This was the scene of the priestly rituals and recitals by which the king was transformed into a god before being laid forever in his sarcophagus within the heart of the pyramid.

Initial phases

That these ritualistic observances attained an uncanny elaboration shows the enormous power wielded by the priesthood. Every step in the

transformation of the dead king into a god is echoed by its architectural setting.

Like the standard form of the pyramid, this did not occur all at once. Sneferu's three pyramids, the one at Medum and the two at Dahshur, show stages both in the development of the true pyramid and of its three associated elements: valley temple, causeway, and pyramid temple. But, at Medum as well as at Dahshur, these were of modest proportions compared to the pyramids near them or to Zoser's imposing complex. The causeways that connected the fertile river border with the small offering temples were left uncovered, exposed to the drifting sands. At both Medum and Dahshur the offering places beside the Sneferu pyramids were extremely primitive. The one at Medum was simply **304** a room-sized court with a small altar for offerings to the dead king. On the right and on the left was a stele. Immediately in front of the offering place stood a modest hutlike structure, merely a kind of protective barrier to exclude the unauthorized from this sacred place. The small dark building consisted of a blocked entrance passage that can only be traversed by making a double turn *(couloir à chicane)*. These we know from entrances to the many offering chapels **285** in Zoser's Heb-Sed court.

Of the valley temple at Medum almost nothing is known. Thus it was with the greatest interest that Egyptologists awaited the excavation of that of the bent pyramid at Dahshur, which Fakhry undertook in 1951-55. They hoped this would provide information about the earlier stages of the complicated layout of Chephren's valley temple at Giza. "The building that was raised at the lower end of the causeway was, through its position far from the edge of the cultivation and through its planning, so very different from that of the valley temples known to us since Chephren, that one hesitates to call it a valley temple," says Ricke (Fakhry, 1959, p. 106). Fakhry assumes that on the rim of the cultivated land there may be another valley temple.

The Dahshur valley temple, with its inner court and its two rows of closely spaced columns with statue niches behind them, reminds one of the mortuary temples as they developed during the next three generations. It has little in common with the later valley temples. The different spaces needed for performance of valley temple rituals are missing. The elaborate rites developed so strongly under Chephren and Cheops still seem to appear all of a sudden.

Their skeleton, however, existed already: valley temple, causeway, offering temple. “Nevertheless, if the general scheme according to which the southern pyramid of Sneferu was arranged is to be regarded as a preceding step in the organisation of the layout in all later royal pyramids, then our building must also be regarded as the starting point for the development of the later valley temple, and even as the first of valley temples” (ibid., p. 110).

Final phase

The sudden ritualistic expansion that appeared under Sneferu reached its climax in the huge complex erected by his son Cheops. Some social change must have taken place. Generally speaking, the enormous increase in rites and rituals must have resulted from extraordinary gains in power by the clergy. In the huge, newly created halls and pillared courts, hymns to Osiris and Nut and the spells recorded in the Pyramid Texts could resound with the utmost impressiveness. All is new. The divinity of the king, and its cult, reach climax.

Step by step, the scanty remnants of the experimental period show how hesitantly the complicated ritual evolved until it found its ultimate form in the pyramid complexes at Giza.

Heliopolis had been the ancient religious and cultural center, whose beginning is lost in the mists of time. Here a highly organized and ingenious priesthood had grown up which — as always in Egypt — combined interlocking elements of the north and the south.

“The imaginative power of the priests of the Old Kingdom had become so great that they were able to unite two completely different myth cycles — the Osiris myth [from the north] and the old royal myth of the battle between Horus and Seth [from the south] . . . and also to work out the system of the nine gods of Heliopolis [Ennead] and transmit all this to posterity in a poetic form. . . . Although unfortunately no exact dating can be given for this spiritual event, it must certainly . . . have occurred in the first half of the Old Kingdom . . . i.e., in the first half of the third millennium’’ (Scharff, 1947, p. 35). The belief that the Pyramid Texts stem from a very early period is now obsolete. In Scharff’s view they were drawn up in the Third or Fourth Dynasty (p. 16). They, like the rituals, were new in the pyramid age, even if their content reached back to a much earlier period.

The pyramid complexes of Giza grow out of this whole religious movement. The mighty, indispensable intermediary in both ritual and royal power was the priesthood. Only the priests could fulfill what they had themselves promulgated. The new architecture in stone was a necessary adjunct to this highly elaborated ritual. With great ingenuity, Ricke and Schott attempt to discern in the organization of the ground plan a direct projection of certain spells from the Pyramid Texts, and even the expansion and contraction of certain cults, such as that of Osiris (1950).

It was not only the amalgamation of the religious traditions of the south and the north, but also the influence of the desert landscape that gave rise to the architectonic organization of one of the most complicated series of rituals ever invented by man: the sequence of the river passage, the valley temple, the causeway, the pyramid temple, and the pyramid itself.

The relation between these rites and the architecture they produced can perhaps be best seen in the valley temple of Chephren and the pyramid temple of Mycerinus.

The valley temple of Chephren

The valley temple of Chephren is the only Fourth Dynasty sanctuary that still preserves its former grandeur. This is probably because it lay hidden beneath the desert sand until detected in 1853 by the sharp eyes of Mariette, who came upon it from behind when clearing sand from around the Sphinx. The front of the temple, which had doorways six meters high, remained under the sand until the beginning of this century. The only adornments on the sloping walls of polished rose granite from Aswan were beautiful hieroglyphs in relief, recording the name and titles of the king.

The entrance to the interior did not lead directly to its goal. The simple baffle-wall entry (*couloir a chicane)* to the little offering temple at Medum, which **304** still preserves the deep-rooted prehistoric notion of protecting the sanctuary from the view of the uninitiated, here achieves high monumentality.

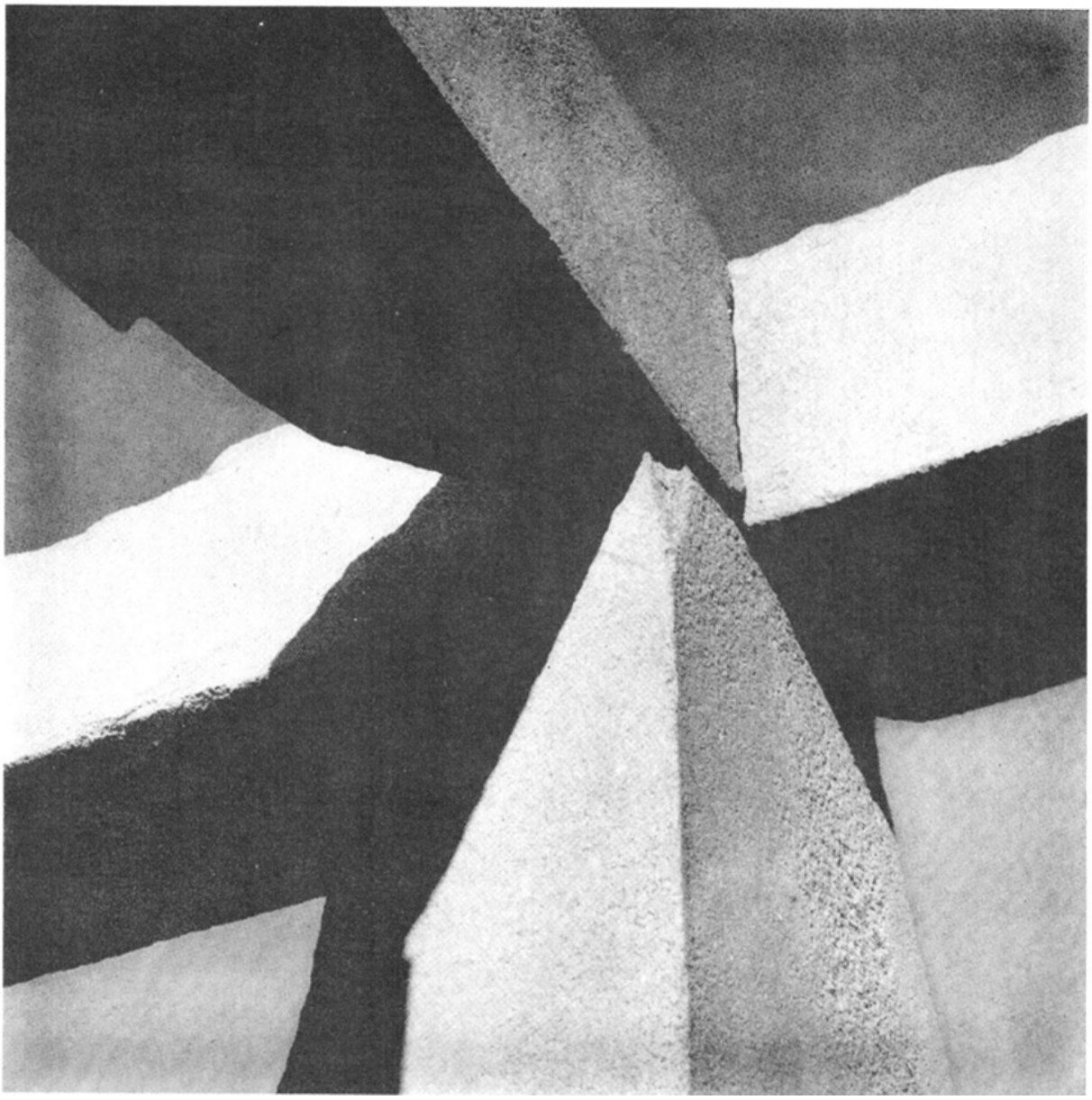
The two entrances for Upper and Lower Egypt are symmetrically organized, and appear in plan almost like two interconnecting pipelines. Their vestibules **325** stretch up .9.40 meters into the building fabric. Walls, floors, and ceilings are of polished granite. Both vestibules end in a blank

wall. All other spaces are lower. A narrow passage leads at right angles into a long rectangular antechamber whose height is only about four meters.

From here one enters the cross hall of the T-shaped hypostyle by means of a short central passage.

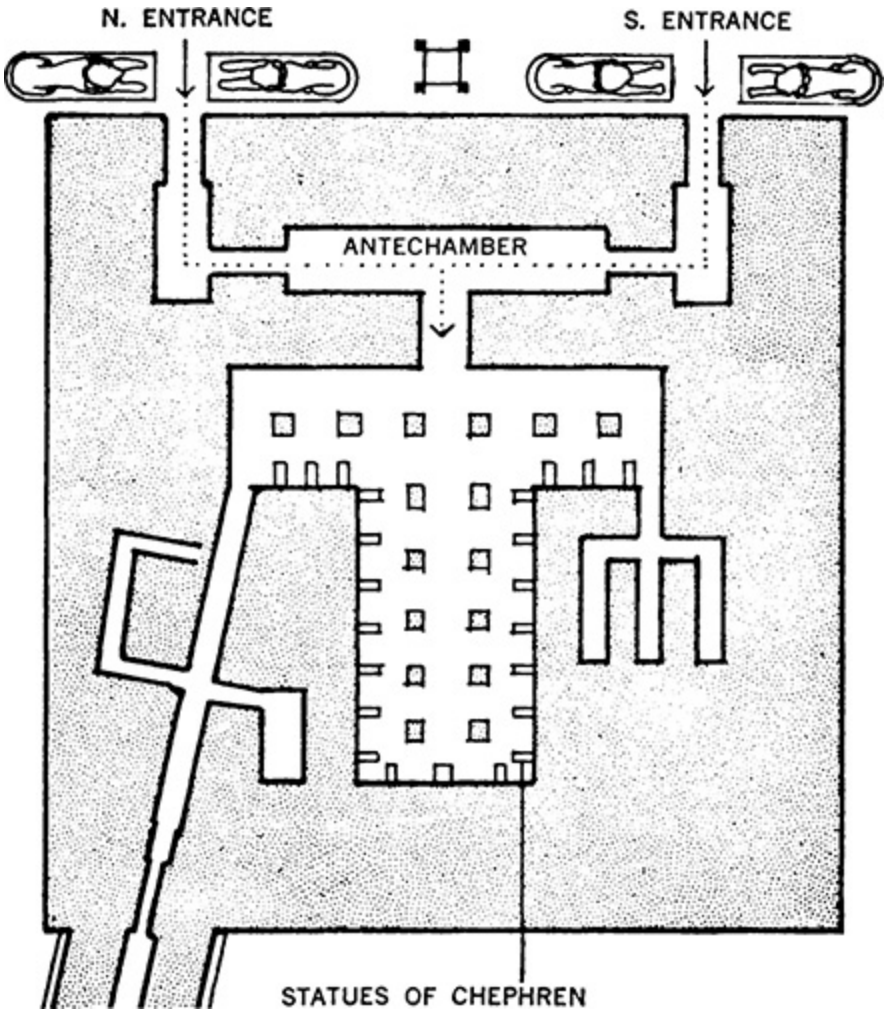
What was the function of the different spaces?

There is no complete agreement as to whether the body of the king was cleansed and embalmed elsewhere (Grdseloff, 1941, pp. 10-12), or whether these procedures took place on the roof of the valley temple (Drioton, 1941, p. 1013). In any case the main purpose of the valley temple would be to accomplish the rites of purification of the embalmed body and the ceremonies of the “Opening of the mouth" of the Ka statues of the king, as elucidated by Grdseloff.



POST AND BEAM CONSTRICTION, CIIEPHREN'S VALLEY TEMPLE: *Detail. The monolithic granite pillars of the center aisle support massive granite architraves*

CENTER AISLE OF CHEPHREN'S VALLEY TEMPLE, *looking toward the antechamber (cf. col. pl. X)*



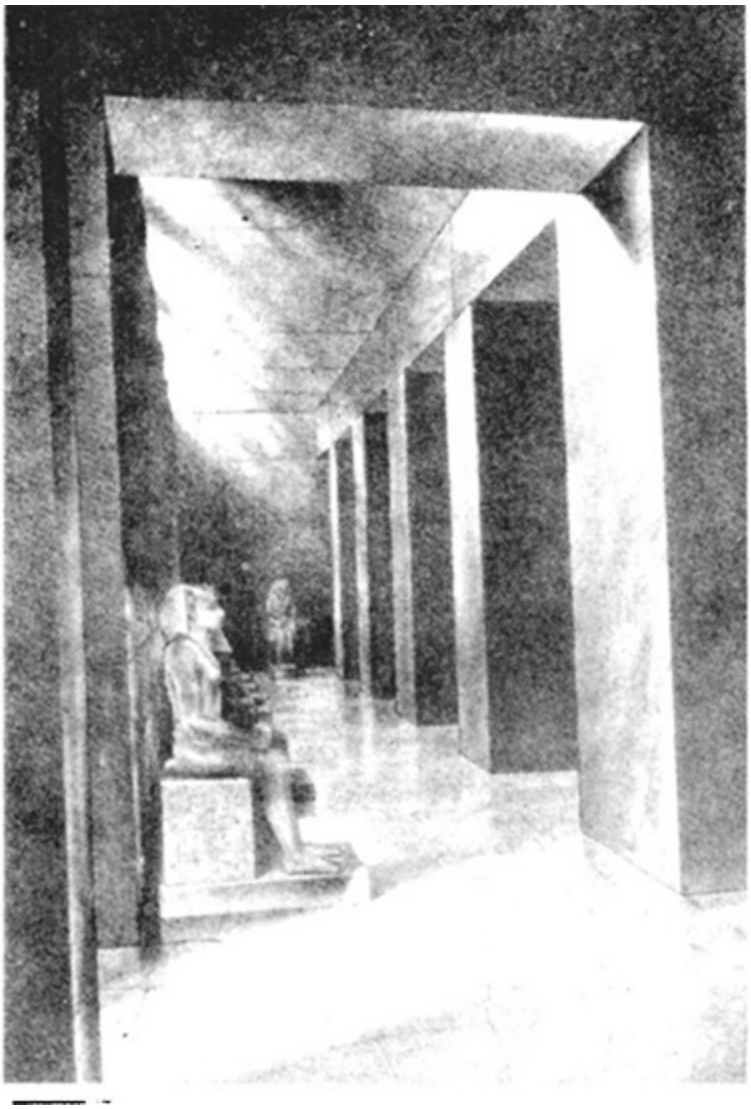
GROUND PLAN OF CHEPHREN'S VALLEY TEMPLE, *147 feet square,* H. *43 feet. Walls extremely thick. Drawing after Hblscher*

The T-shaped hypostyle hall

255 col, 325 The great T-shaped hypostyle hall with its sixteen monolithic granite columns has also been variously interpreted. Most see it as a single space and the **below** scene for the "Opening of the mouth" of the twenty-three statues of the king which lined its walls. Only after the priests had performed this complicated ceremony could the statues receive their Ka.

Ricke, however, does not see this hall as one unified space. He considers the cross hall to be the ritual embalming site and the long nave the scene for the "Opening of the mouth." "Their monumental form is an expression of the ideal distinction between the handicraft of mummification in a workshop and the ritual embalming in a cult center" (1.950, p. 96').

For the execution of these rites, which culminated in the ceremony of the "Opening of the mouth," it is most likely that the coffin containing the mummy was brought into the empty space in the center aisle of the mouth-opening area. "The ritualistic connection of the embalming place and the place for the 'Opening of the mouth' ... is made impressively visible in the building form of the valley temple of Chephren through its highly ingenious juncture of a two-aisled cross hall with a three-aisled nave" (p. 98).



LEFT AISLE OF CHEPHREN'S VALLEY TEMPLE: *Reconstruction. Only a partly obstructed, dim light could enter narrow horizontal slits cut through slabs in the roof and wall, as earlier in Zoser's ceremonial passageway. Twenty-three diorite statues of Chephren stood around the walls of the T-shaped chamber. From Hölscher*

No hesitation whatsoever is apparent in the use of these large blocks of stone, the square-cut monolithic columns and heavy beams. Horizontal and vertical **324 24** meet directly with no intermediary. A stern architecture, fully in accord with the mournful rituals for which it was designed and which shaped every detail of its structure.

The causeway

Sometimes, as here, the archaeologist has to have the talents of a detective to track down the narrow, completely asymmetrical entrance to the roofed causeway, which ran in one straight line for more than a quarter of a mile.

The mortuary temple of Mycerinus

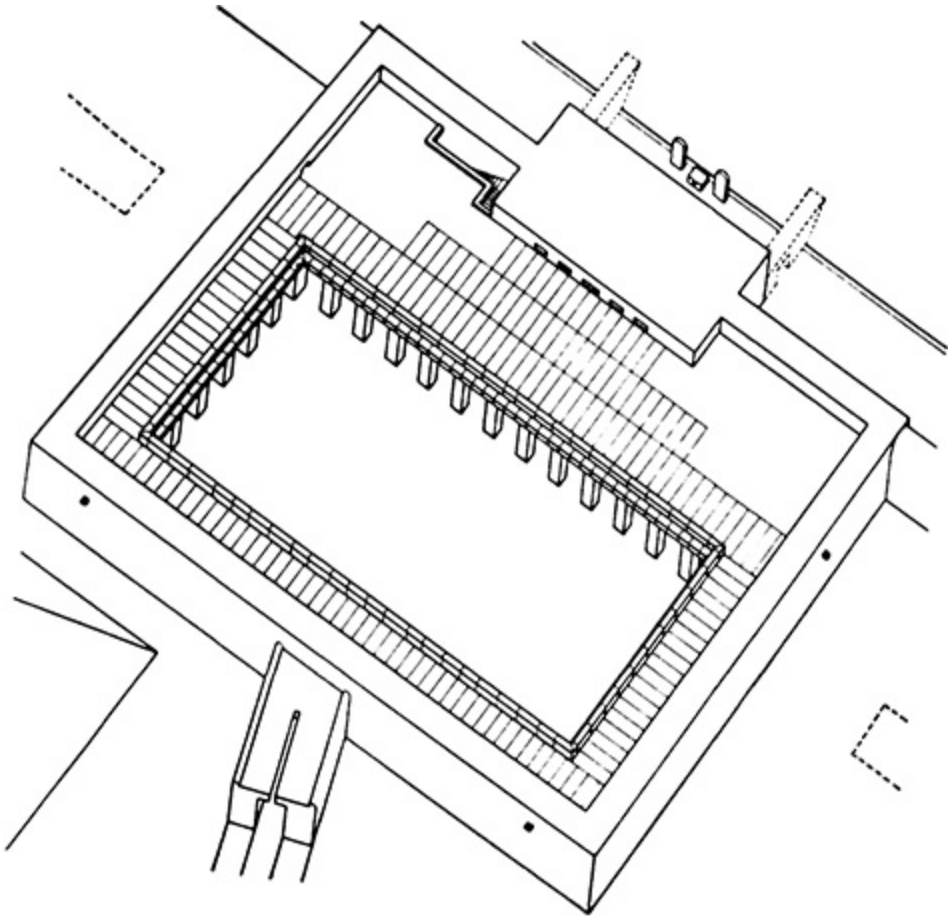
The mortuary temples attached to the pyramids of Cheops, Chephren, and Mycerinus express the culmination of the newly developed funeral rites for the dead monarch. Two functions were combined and yet separated in the same building: a place of veneration and an altar for offerings.

The first was intended for daily services venerating the dead king, and large endowments were set aside so that these could continue eternally. The main feature of this area was a large inner court where hymns and prayers were chanted or recited.

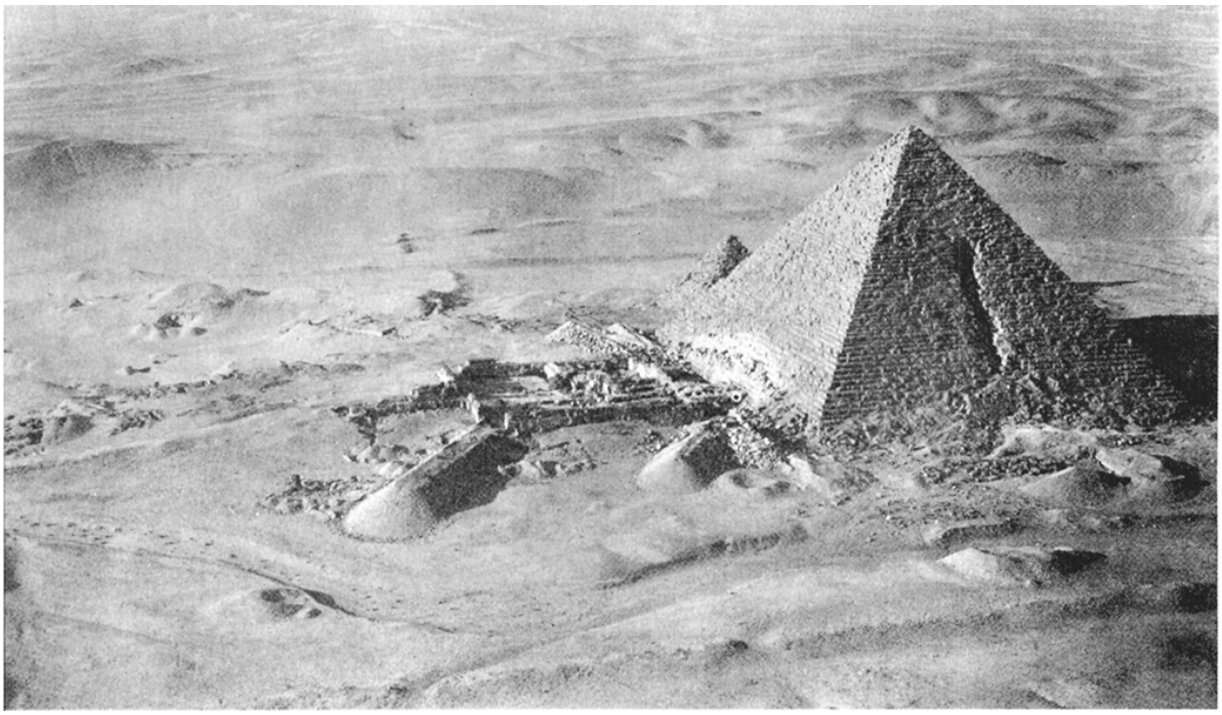
The first appearance of the inner court in its full magnitude was in the mortuary temple attached to Cheops' great pyramid, but only remnants of its **328** surrounding black basalt pillars remain. Researches by Lauer and Ricke give us some conception of the grandiose pathos of its architecture (Lauer, 1948, p. 95). The walls bore reliefs of which some fragments have been found. The square black pillars of the peristyle gave a monumental frame to the daily services in the large, skyward-oriented inner court — a feature destined to play an outstanding role thereafter in Egyptian ritual architecture.

The second function of the mortuary temple — the offertory — was carefully secluded from the court of veneration. It was the most intimate part of the temple. The offering table itself and one or two large steles were directly attached to the pyramid, to be as near as possible to the resting place of the king. They retained the same modest size as at the pyramids of Medum and **304, 307** Dahshur.

PLATFORM OF CHEOPS' MORTUARY TEMPLE: *Nothing remains of this earliest known monumental building except the remnants of a few square columns, as in the foreground*



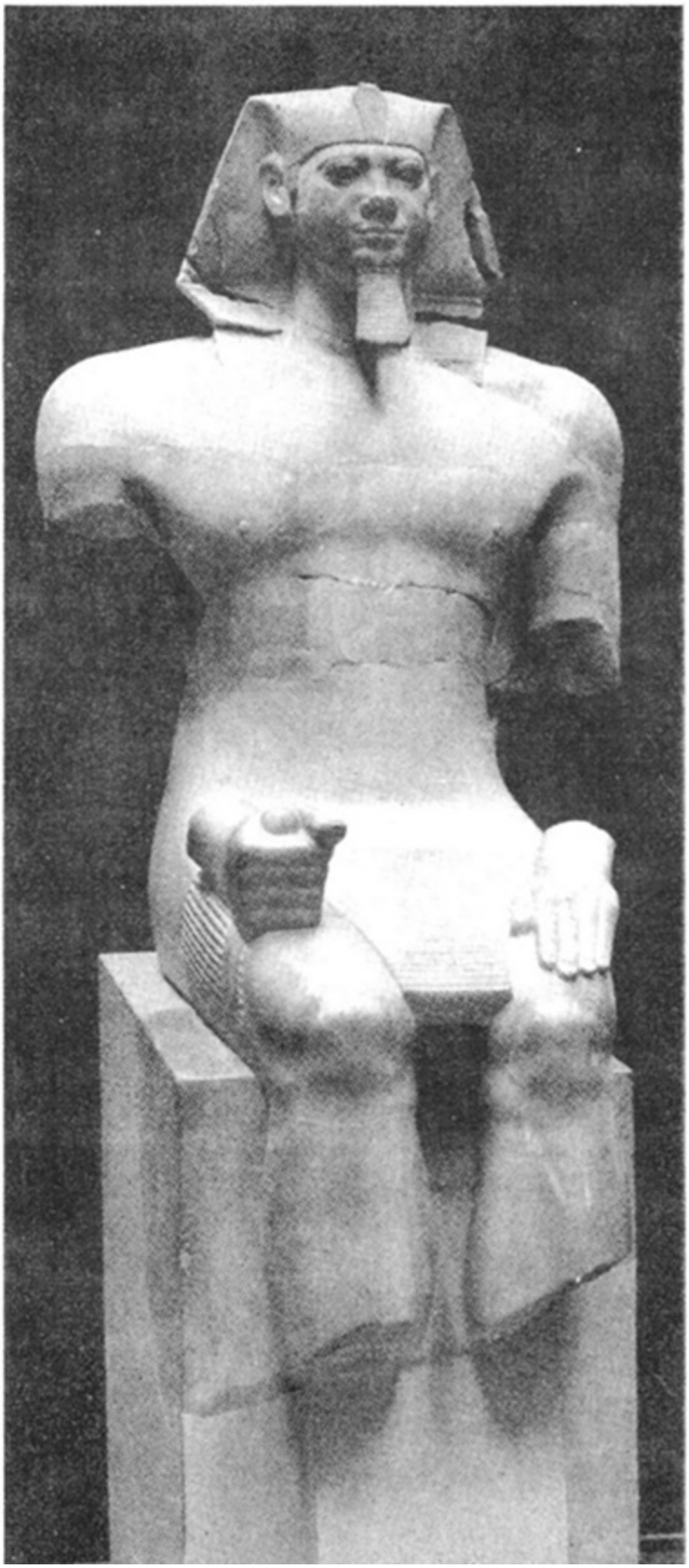
RECONSTRUCTION, CHEOPS'MORTUARY TEMPLE, *adjacent to his pyramid. Drawing by Ricke*

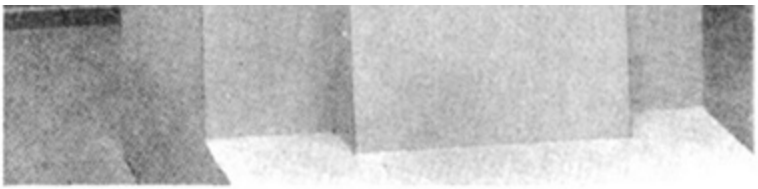


AERIAL VIEW OF MYCERINUS' PYRAMID *showing east face with adjoining mortuary temple. From Reisner*

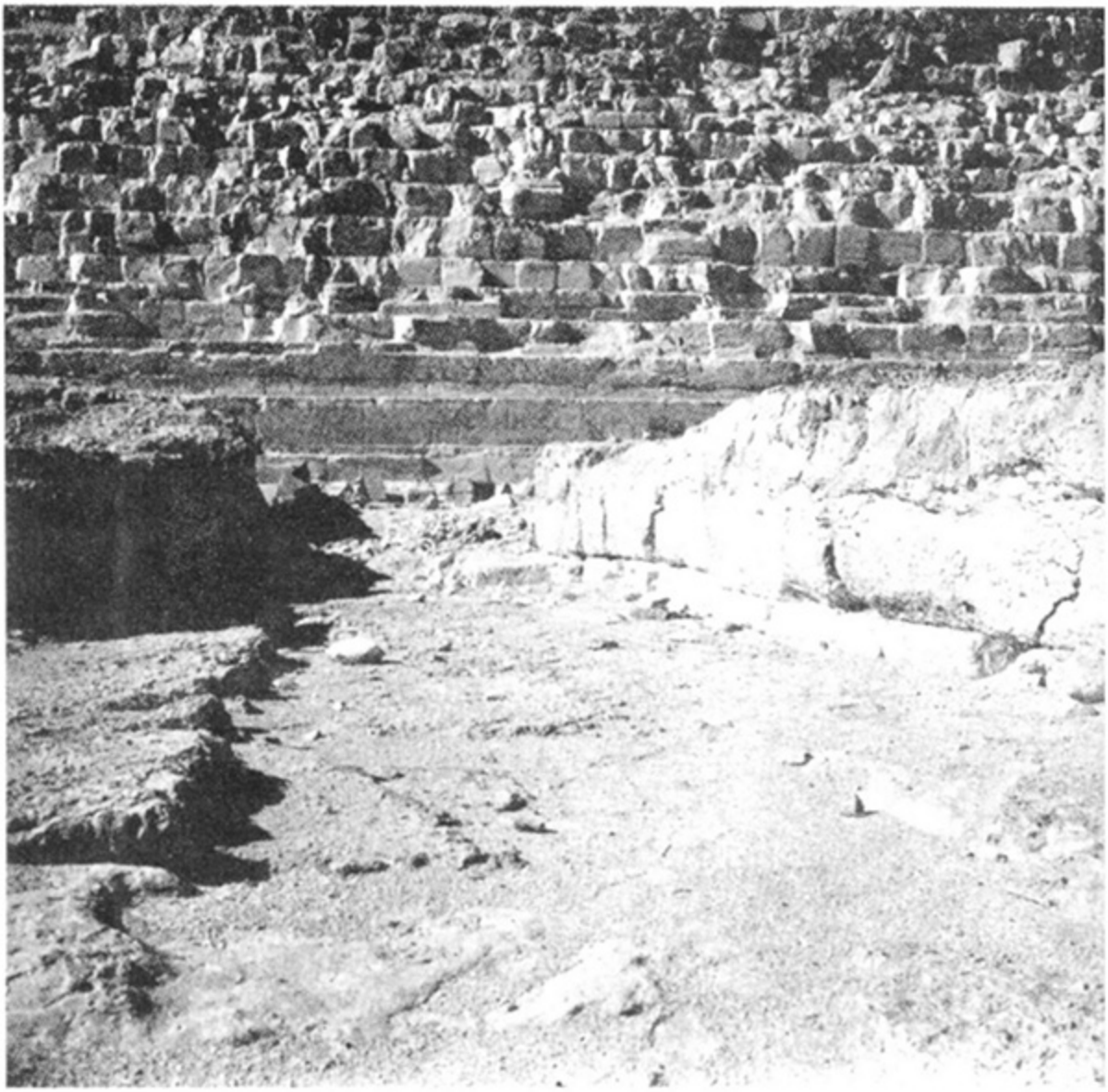
The dual purpose of the mortuary temple as a court of veneration and an offertory can best be seen in Mycerinus' building, even though this was never **above** fully completed owing to the disturbed situation at the beginning of his reign and to its relatively brief duration.

The original plan was to construct the temple of local limestone, but in the end, limestone blocks were only used for the foundations and the core of some of the walls. The rest was brick covered with whitewash. Ricke crystallized Mycerinus' original plan from several different variants (1950, pp. 55-62). Reisner undertook the excavation of the whole complex (1931).

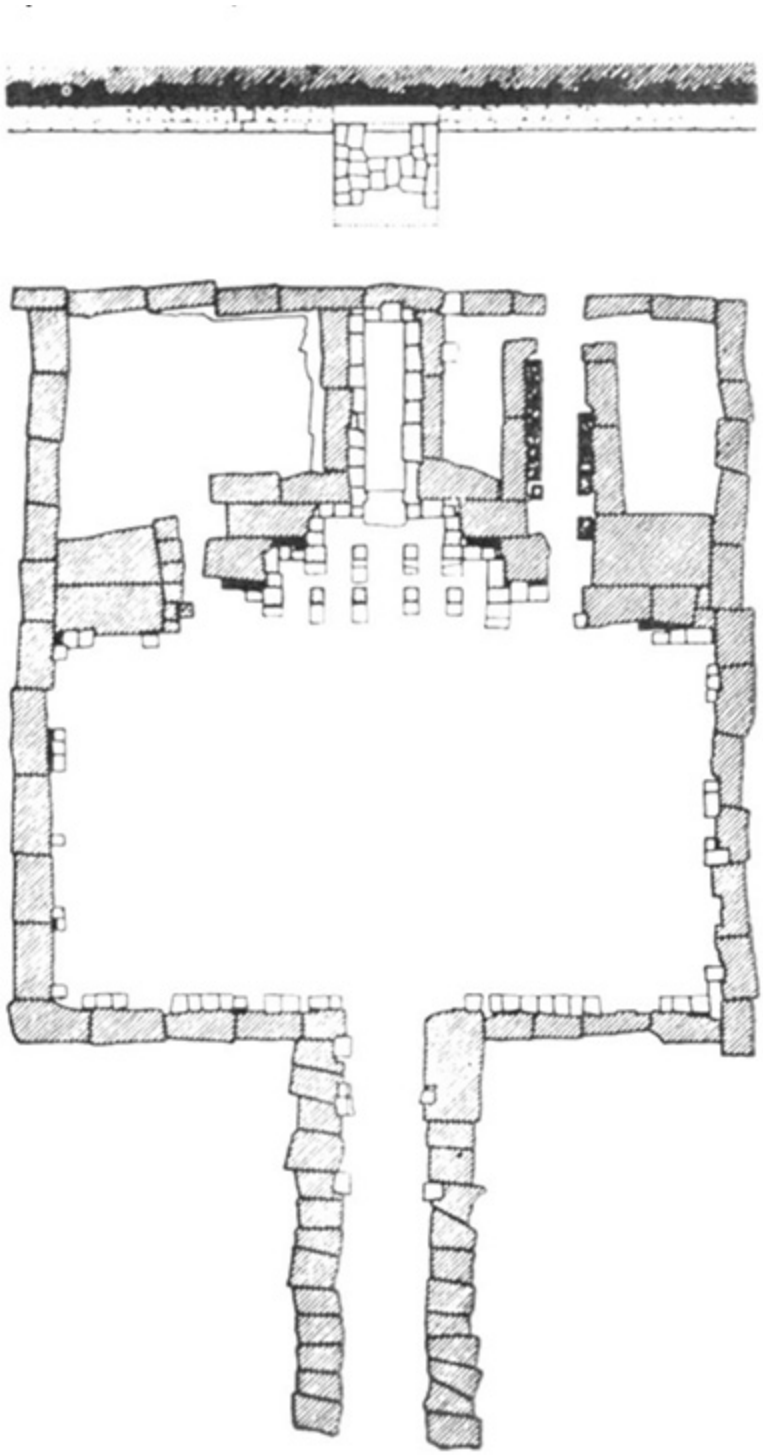




COLOSSAL ALABASTER STATUE OF MYCERINUS: *This statue, 7 feet 8 inches high, was found by G. A. Reisner near the mortuary temple, broken in several pieces*



DEEP NICHE OF MYCERINUS' MORTUARY TEMPLE: *The huge seated statue was probably placed at its farthest end*

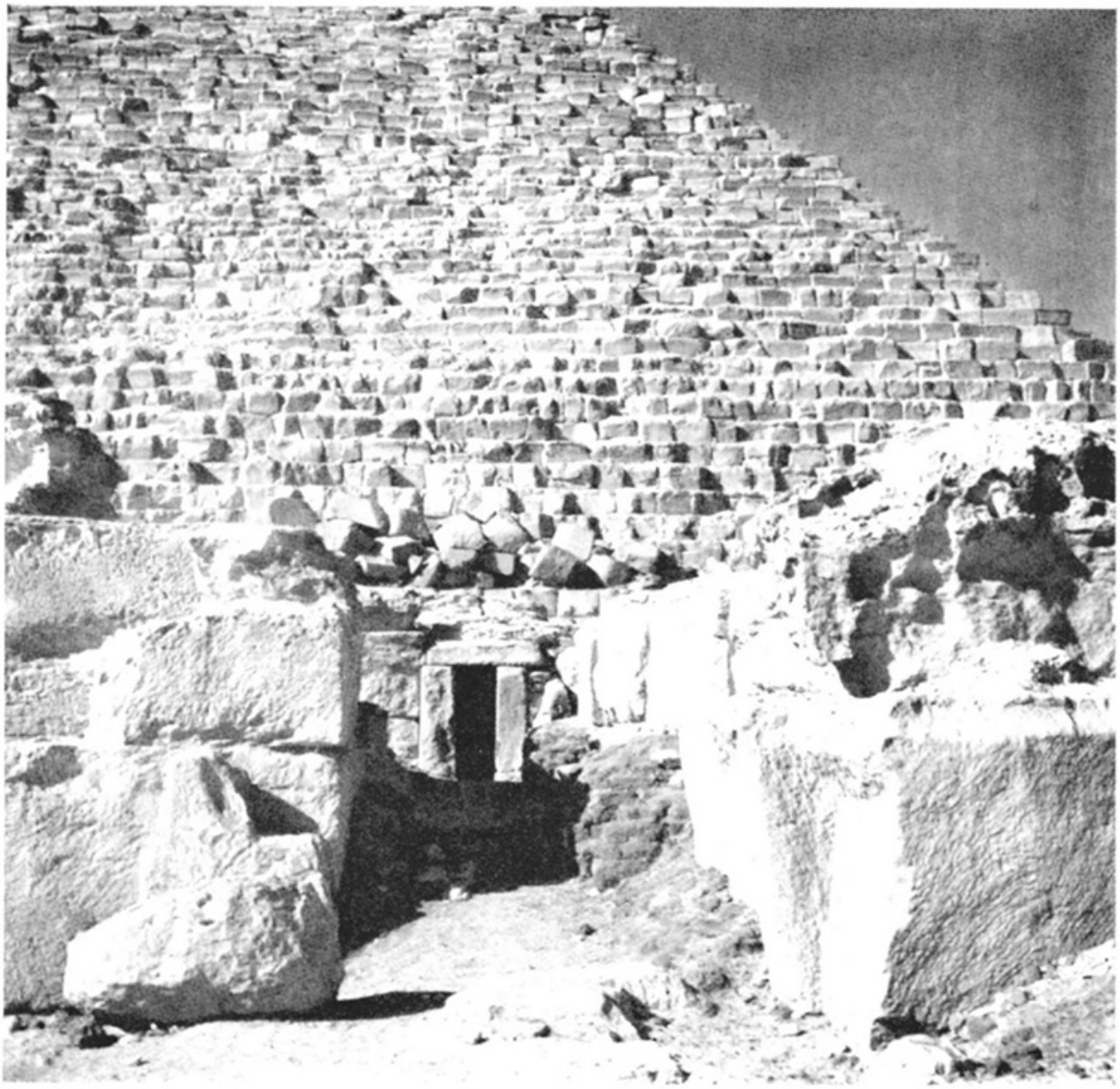


GROUND PLAN OF MYCERINUS' MORTUARY TEMPLE *reconstructed by Ricke, showing the long narrow vestibule; large inner court, the center of the veneration temple; deep niche behind the pillars of the Gateway of Nut; and the separated and secluded passage leading directly to the offering table attached to the pyramid. From Ricke*

MORTUARY TEMPLE ON EAST FACE OF MYCERINUS' PYRAMID: *In the foreground the ruins of the long, covered vestibule, now in full sunlight*

The day side

From the causeway one enters the mortuary temple through a narrow vestibule that leads into the great sun court. The mystical atmosphere of the valley **left** temple with its dim lighting and the long darkness of the causeway has radically changed. All rituals to ensure the future life of the god-king have been completed. The cosmos in all its splendor may again have right of entry. The architecture expresses that fact in masterly fashion.



SECLUDED PASSAGEWAY TO MYCERINUS' OFFERING TABLE: *The walls were faced with blocks of black granite*

A sun court surrounded by pillars, such as Mycerinus planned, had never before been built. Pillars normally stood only before the deep passagelike niche at the far side of the court, forming — according to Ricke — the Gateway of Nut which separated the day-side cults of Ra from the night-side cults of Osiris.

330 A colossal seated alabaster statue of King Mycerinus (7 ft. 8 in. high) was in all probability placed at the farthest end of the deep niche. Reassembled from several large fragments found by Reisner in the temple

area, it now towers above the other Egyptian statuary in the Museum of Fine Arts, Boston. Its unusually athletic torso shows that the king has regained in death the full vigor of his earthly life.

The width of the sun court was narrowed by stages to form the columned passageway — the so-called Gateway of Nut — which terminated in the deep niche. The court was the "public" area where daily services were held for the dead king, and for this reason the whole is sometimes called a veneration temple (*Verehrungstempel*). The duty of caring for and restoring the mortuary temple was laid upon the priesthood, to be met out of the endowments left for the perpetual continuance of the daily services there. In the case of Mycerinus, the original temple was completed only in a somewhat crude manner.

The night side

Near the northwest corner of the sun court a narrow passage leads toward the **left** pyramid. Right and left it was lined with blocks of black granite. Despite its ruinous condition one receives an instant impression of awe. This passage opens onto the narrow space at the foot of the pyramid within its encircling wall — the most sacred precinct, to which no chamber of the so-called public area had access. In it, directly attached to the pyramid, stood an offering altar with one or two steles, as at Medum and Dahshur. In this final station before the pyramid, **304, 307** utmost simplicity again prevails.

The pyramid complex of the Fourth Dynasty was not developed further as a building type. The sun sanctuaries that appear in the Fifth Dynasty contain no new elements, either in their situation on the rim of the desert or in their structural program. Their ritualistic significance, however, presents an interesting phenomenon.

THE SUN SANCTUARIES OF THE FIFTH DYNASTY

Humanization of the deity

Sun sanctuaries are a peculiarity of the Fifth Dynasty. Each of its first six kings erected his own sanctuary for the Heliopolitan sun-god Ra. Weserkaf, with whom the dynasty opens, built the first one in Saqqara; with the sixth king their use disappeared forever. They represent a short interlude in the Egyptian development during which the fusion of human with divine nature was pushed to such an extreme that these sanctuaries borrowed elements of the royal pyramid complex — that masterly creation for the transformation of a mortal into a deity. In the sun temple, however, it was the deity who assumed human existence. One can go no further.

The cause was to hand. The sun temples of the six kings mark the pinnacle of the Ra cult in Heliopolitan theology. This occurred in the Fifth Dynasty when, as Gardiner records, “the Heliopolitan priesthood began to wield an unprecedented influence" (1961, p. 84). On the same page he adds: “The dominant position of the sun-god is reflected in a fresh development that now befell the royal titulary. Hitherto the name of the Rꜥ had appeared only in the cartouches of” kings of the Fourth Dynasty. In the Fifth Dynasty the name of the sun-god appears as part of the praenomen of the king: an all-important change for Egypt.

A legend that the first three kings were the triplet sons of a Heliopolitan priestess and the sun-god Ra is recorded in a Berlin papyrus from the Late Period. It is now thought that the kings of the Fifth Dynasty were the direct offspring of Cheops. Even so, the legend contains an inner truth: the sun sanctuaries were exponents of the Heliopolitan cult, and their disappearance toward the end of the Fifth Dynasty can be attributed to the rapid growth of the Osiris cult. This already heralds the coming Intermediate Period. The radiant confidence which formed part of sun worship disappeared amid the grief and anxiety which beset both the individual and the state during that troubled period.

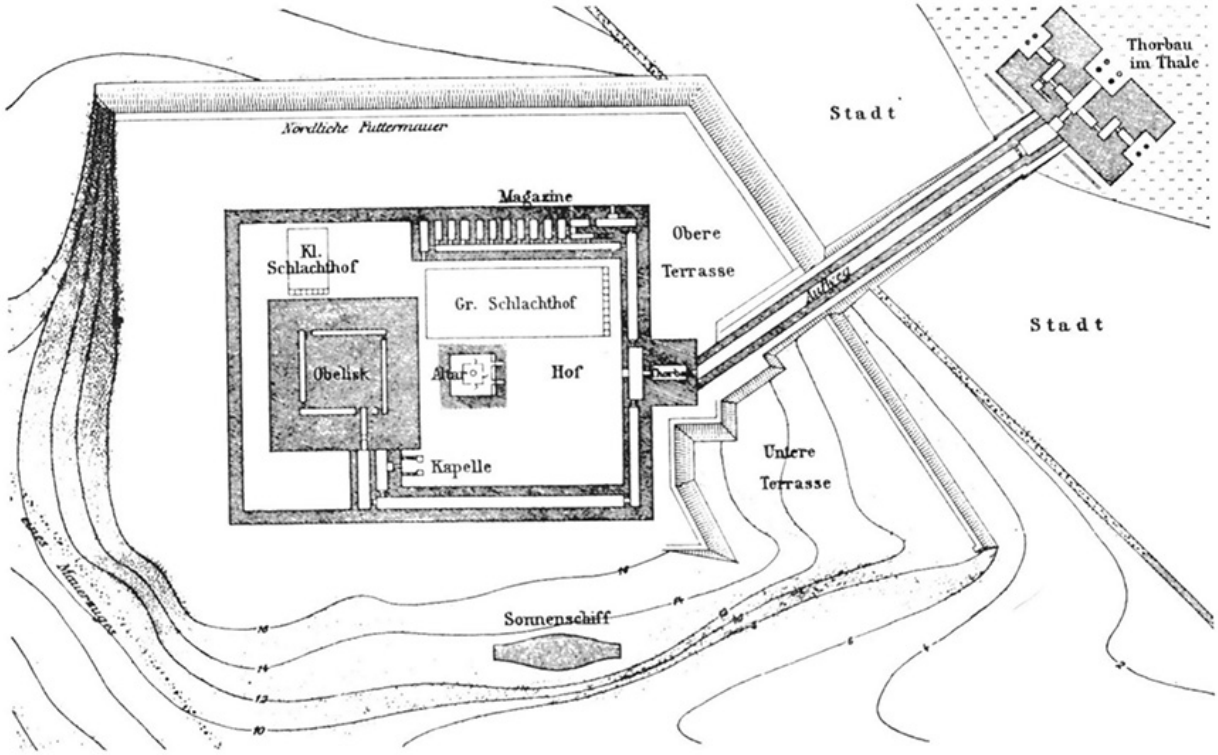
Upon the walls of the passages and the tomb chamber of the last king of the Fifth Dynasty, Unas, Maspero found in 1881 the first inscribed Pyramid Texts. In them the ever-growing might of Osiris comes out strongly. This development from the highest rise of the solar cult to a flight to the god of the dead, who held the powers of ultimate decision as to future life, encompassed little more than two centuries.

The sun sanctuary of Ne-user-ra

Of the six Fifth Dynasty sun sanctuaries recorded, only one — the complex of Ne-user-ra at Abu Gurob — affords a comprehensive view of their puzzling layout. Borchardt excavated and studied it in 1898-1901 (1905). We can gain from it some comprehension of the inner structure of the Fifth Dynasty fusion of deity with human being. The sanctuary lies on a terrace of leveled sand about **below** twenty minutes' walk from the pyramid and marvelous pyramid temple of its constructor, Ne-user-ra (1907, p. 5). The Nile floods reach to the valley portal which announces the beginning of the sanctuary. This pavilion reminds one in many ways of Chephren's valley temple: sloping walls, separate doorways for Upper and Lower Egypt, and a symmetrical organization of the inner passageways, although of course no hall for the mortuary rites of the king. There is also a roofed causeway that leads from the valley temple to a main area built on an artificially raised and leveled podium. The chief feature of this area was the great sun court in which the priests celebrated daily rites for the king. Access to this sun sanctuary was through an entrance portico.

All details point to the main purpose: a place of sacrifice, a great court for the sacrificial slaughter of animals, with runnels cut into the pavement to drain away their blood, as in the temples of Peru. Ten (today nine) alabaster basins **335, 338** were placed in a row to the right of the entrance; their rims are surrounded with small cuplike hollows like those found later around the fertility altars of Minoan Crete. "Their inner section is like the form of the beautiful vessels of gleaming red pottery known from the Old Kingdom" (1905, p. 48). Perhaps they were basins to receive blood from a cut throat, as Borchardt believed. This was a slaughter area in the grand manner, complete with a mighty alabaster altar **338, 339** immediately before the sun obelisk. In the center of the altar a raised circular platter,

reminiscent of the original form of an eating platter, was surrounded by four offering places each in the shape of a *hetep* hieroglyph 𓊃 signifying a mat with a circular loaf of bread upon it. These four offering tables were oriented to the cardinal points. The offering table between the two steles at **304** Sneferu's Medum pyramid had a form similar to these, and offering platters in the *hetep* form have been found in many mastabas.

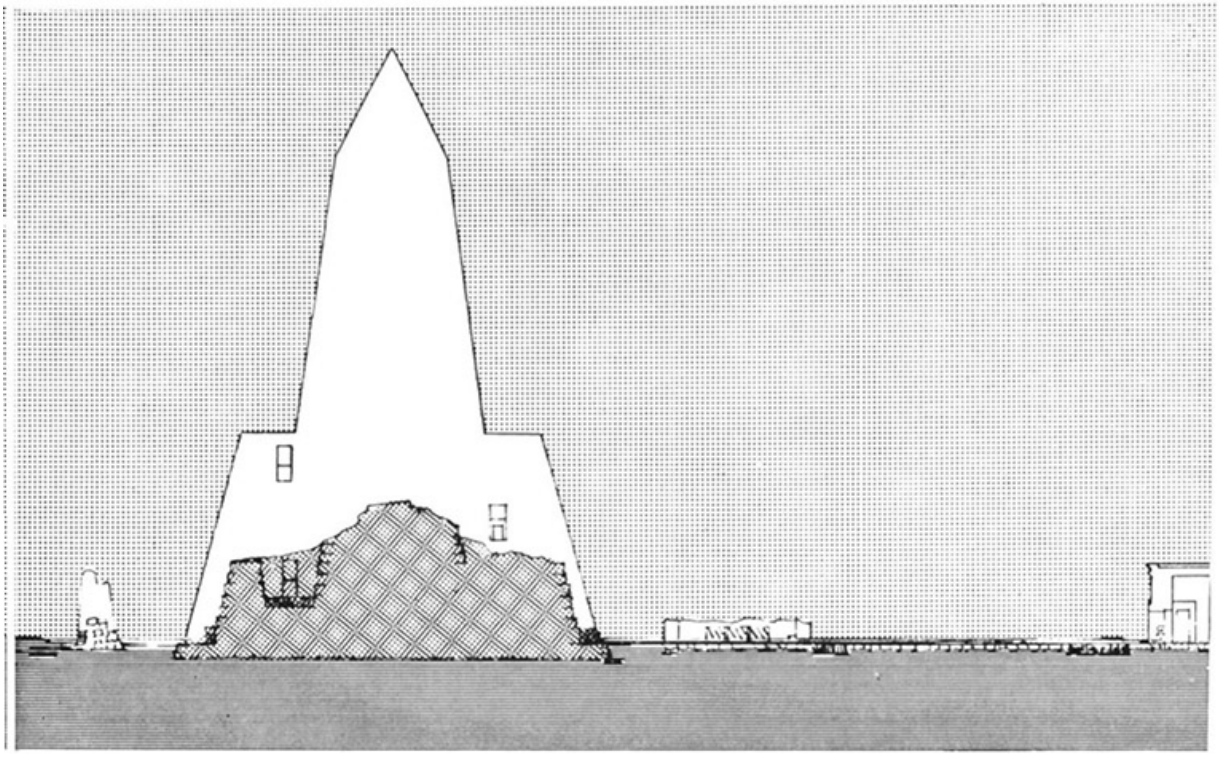


SITE PLAN OF NE-USER-RA'S SUN SANCTUARY: *The sanctuary of the sun-god Ra follows the organization of the Fourth Dynasty pyramid complex — valley temple or portal, covered causeway, temple with large court* (*here 300 x 250 ft.*) *for sacrifices to the sun-god — before a heavy obelisk instead of a pyramid. Large sun boat outside the enclosure. Fifth Dynasty. From Borchardt*

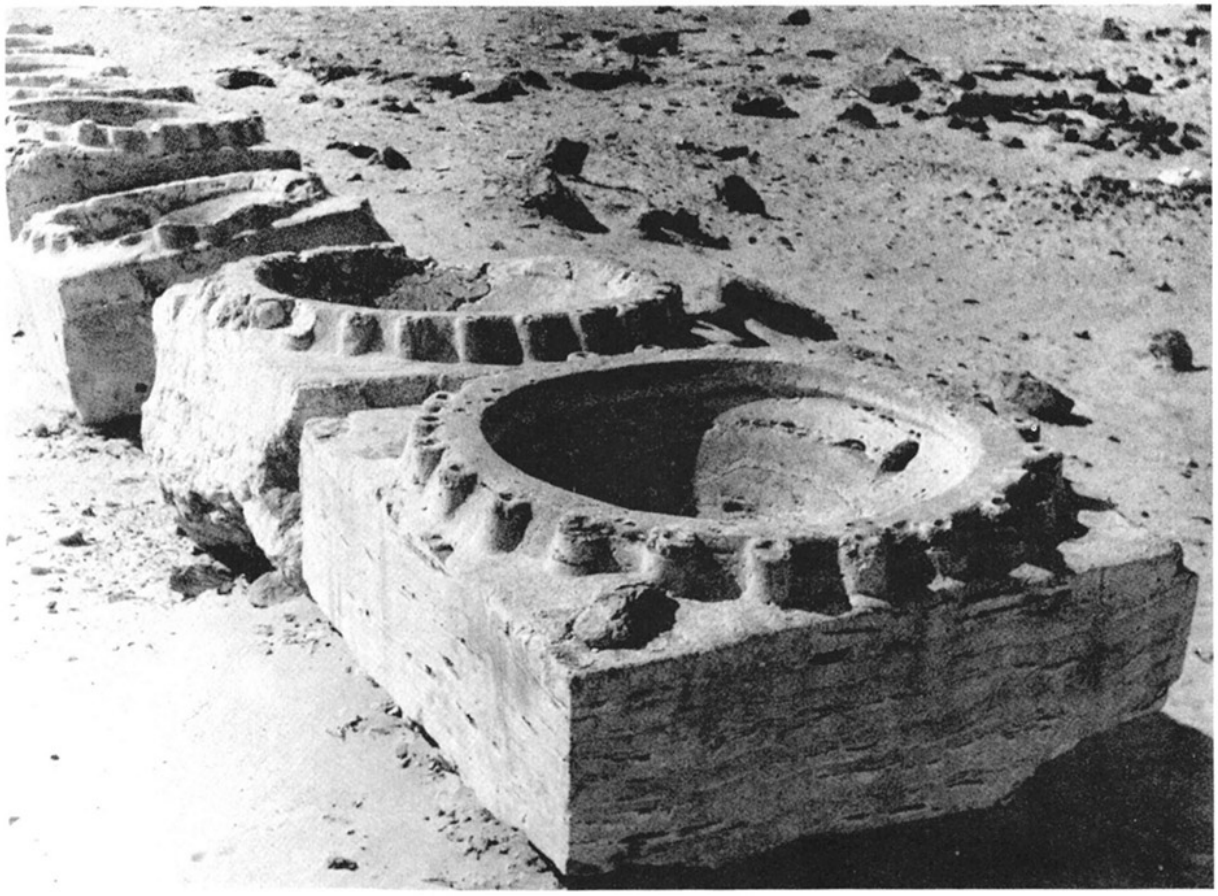
REMAINS OF OBELISK OF NE-USER-RA'S SUN SANCTUARY *at Abu Gurob: The end of the causeway can be seen in the background at the right*

SUNKEN RELIEF OF OBELISK: *From chapel of Ti, Saqqara. Painted with green on a granite block in the sun court*

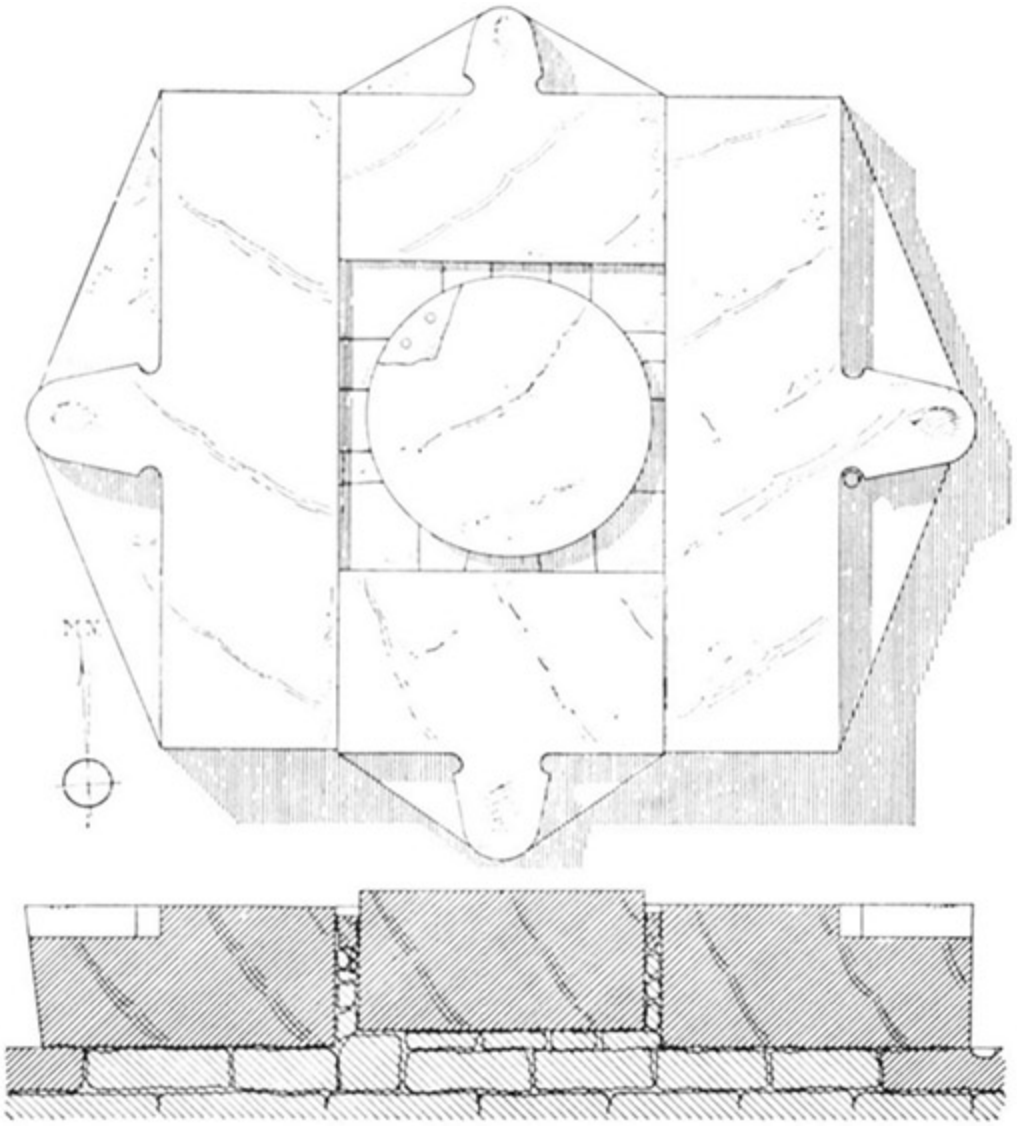
Sun altars of modest size, approached by small steps, also appear in the New Kingdom, such as the altar of the uppermost terrace dedicated to Amon-Ra in **417** Hatshepsut's temple and the one behind Tuthmosis III's festival hall in Karnak, but none had so prominent a position or such sculptural monumentality.



RECONSTRUCTION OF OBELISK OF NE-USER-RA. *Drawing after Borchardt*

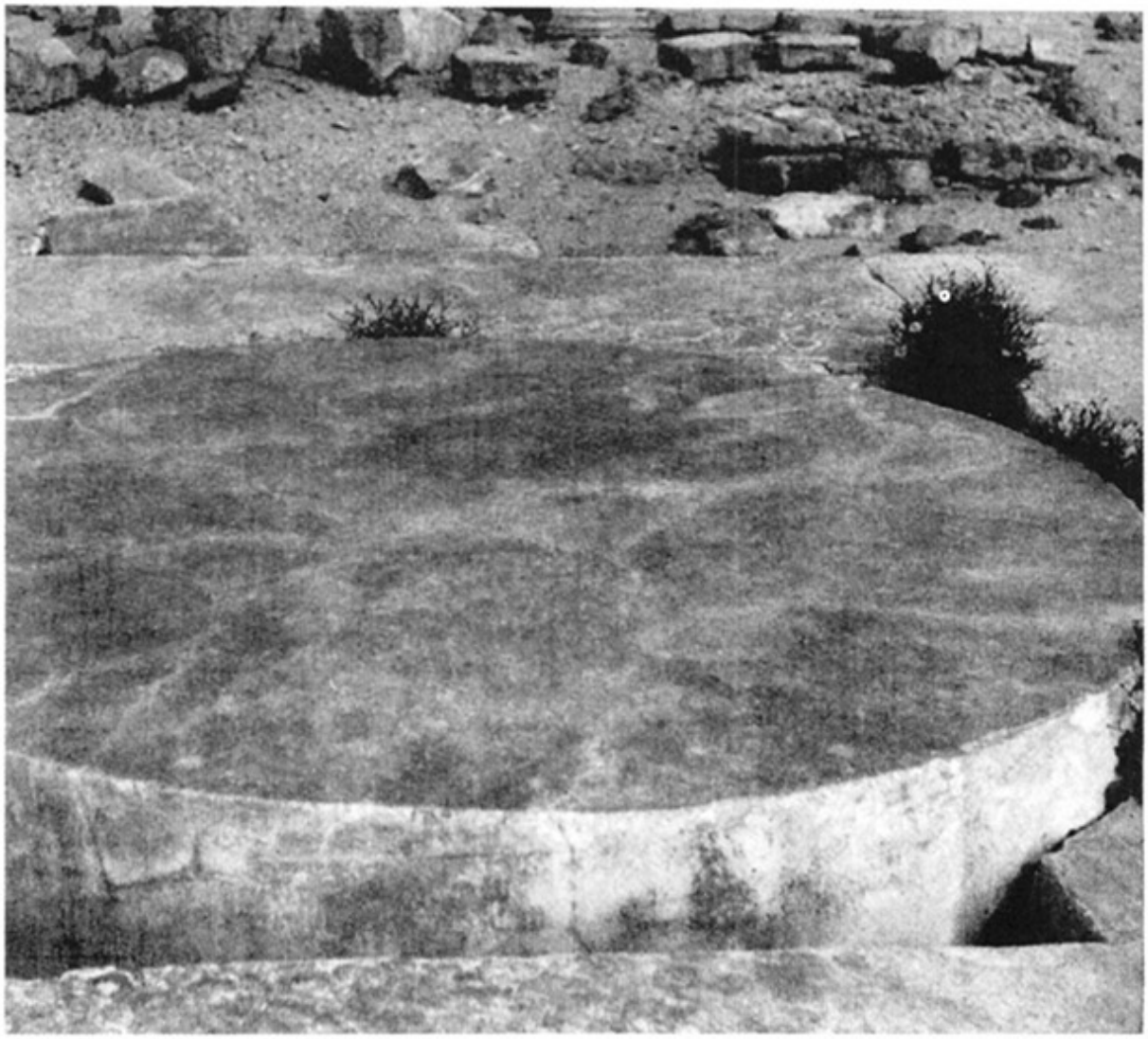


ROUND ALABASTER BASINS WITHIN SUN COURT *on immediate right of entrance from causeway: They were meant to contain the blood of sacrificed animals*



PLAN OF SACRIFICIAL ALTAR IN SUN COURT: *A hetep(bread form) on each of its four sides. Raised circular offering table in center. From Borchardt*

SACRIFICIAL ALTAR IN SUN COURT, *directly in front of the obelisk*



CIRCULAR OFFERING TABLE: *Set within the sacrificial altar. The blood of the sacrificed animals was probably conducted in channels across the court to the alabaster basins*

The sun court of this sanctuary (330 x 250 ft.), which betrays every sign of cosmic orientation up to the magical union through blood, concentrates the significance of the Egyptian inner court without the addition of a surrounding portico. All is directed toward the eternal circle under the protection of the obelisk, symbol of the sun's rays. One emerged into this area from a dark passage that led from the entrance portal into the interior of the truncated pyramid. There was, of course, no corpse to protect. A winding passage led up to the **337** open platform from which the heavy obelisk (built of stone blocks) rose to a height of about thirty meters. Court, altar, obelisk, were all bathed in light.

335 To the south are brick foundations upon which once lay a solar boat similar in dimensions to the marvelously preserved wooden one found on the south side of the Cheops pyramid.

On the meaning of the sun sanctuaries

Are the sun sanctuaries exclusively places of worship, veneration places for the sun-god? All signs indicate it. Their main accent was the towering Ra symbol: the obelisk rising above the truncated pyramid and the place of sacrifice.

The first sun sanctuaries had merely a truncated pyramid, similar to the earlier mastabas and similar in shape to the tomb of Shepseskaf, last king of the Fourth Dynasty. During three seasons from 1.955 to 1.957, H. Stock and Ricke searched for Weserkaf's sun temple. Little was left of it except for a few revealing details such as a "meager altar of Nile mud bricks" (Stock, 1959, p. 11).

It was Neferirkara, third king and builder of the highest pyramid of the Fifth Dynasty, who first set an obelisk upon the truncated pyramid as a dominating architectural form. Both forms — truncated pyramid and obelisk — can be traced back to symbols of Atum-Ra in the temples of Heliopolis. The truncated pyramid, together with the position of the sun temple on a hill, was conceived **336** as an abstraction of the "high sands" symbol at Heliopolis; the obelisk itself as an abstraction of the benben stone, the first manifestation of Atum-Ra from the primeval chaos (Kaiser, 1956, p. 111).

Yet there are questions whether these sun sanctuaries were destined solely for the god Ra. To judge by Egyptian habit, it is more than probable that they were intended for more than a single purpose.

Each of the six kings built his own sanctuary. What does this mean? Is not the entire project (as has been suggested) a "double" — a second place of veneration? "In other words, should the king maintain, besides his tomb as an earthly ruler, a personal place of worship for himself as one reunited after death with his father Ra?" (Winter, 1957, p. 233)

The significance of the sun sanctuaries of the Fifth Dynasty may be related to the royal mortuary cult (Kaiser, 1956, p. 114). One is reminded of the cenotaphs of the First Dynasty, of the false tomb and the actual tomb

that the early kings erected, one in Upper and the other in Lower Egypt, as a double security for their further existence. In the Fifth Dynasty, when the cult of the king as the son of god and the cult of Ra had risen to such pre-eminence that it was possible to readopt the external appearance of the pyramid complex, a fusion of veneration rites for the dead king with those of the sun-god can well be understood.

ON THE MEANING OF THE PYRAMIDS

The meaning of the pyramids has always preoccupied Egyptologists. Not only Egyptologists: astronomers and astrologers, architects and engineers, theologians and mystics, mathematicians and romantic visionaries have continually come up with new interpretations of the nature and inner significance of the great pyramid.

Nothing could be further from my intention than to enter into the interpretative controversies to which the simple, enigmatic form of the pyramid has given rise. Many are recounted by Lauer (1948, pp. 110-60). But I will point out that the theories of the Egyptologists crystallize around two continually recurring and opposing points of view, one materialistic, the other symbolic.

The materialistic concept explains the configuration of the pyramid as the outcome of technical developments, as a culmination of numerous tentative approaches (Speleers, 1935-38, p. 603). This is basically Petrie's view, as he states in his account of the Medum pyramid: "The system by which the construction was carried on bears an evident analogy to the building of the great mastaba tombs in the cemetery of Medum. . . . These wide, flat 'mastabas,' or 'benches,' were added to during the owner's lifetime by coating them with one or two thick masses of brickwork. . . . Such a system exactly agrees with what we see in the pyramid of Medum" (1892, p. 5).

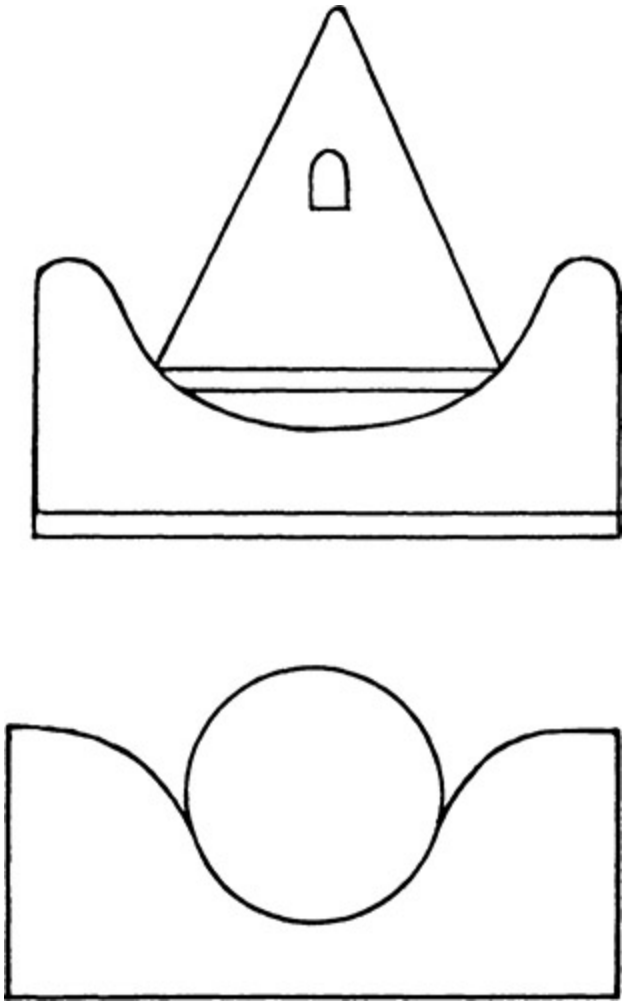
Borchardt, to whom we owe many careful studies of Egyptian architecture, also believes that the form of the pyramid is the result of the efforts of several generations of architects, after many detours and ultimately "perhaps by chance" (1928, p. 40). His approach is based upon construction procedures.

Ernesto Schiaparelli's symbolic approach in 1884

Symbolic ritual begets technical construction, and not contrariwise. The world of the Egyptians was similar to the world of prehistory: filled with

symbols in which reality and the hereafter, sacred and profane, were inextricably intertwined. It was a world of the eternal present — the unending continuance of existence. Death was only a bridge leading from one real existence to another; but because of this it had tremendous importance. Probably no other people have made this transition so central to their thinking. Thus no others have ever given it so overpowering an architectural expression.

The relation between the pyramid and its symbolic significance can only be encompassed in a broad sense. The pyramid cannot be considered in isolation, whether as a tomb or as a formal shape. It is bound up with the ascendant solar cult in which the god, the king, and the Ka merge. At the same time, it incorporates age-old concepts too.



SCHIAPARELLI'S RELATION OF SUN AND PYRAMID: *Schiaparelli compares the sun disk between two mountains* ("*the sun in its horizon*") *with a pyramid standing in place of the sun*

Scholars have been aware of this from the beginning, but Schiaparelli was one of the first to place on a sound scholarly basis his inquiry into the symbolic meaning of the pyramids. Possessed of the universal outlook of a great scholar, he dared to go into this problem in 1884, at a time when the Pyramid Texts had only just been discovered by Maspero and still lay untranscribed on the walls of King Unas' tomb. Like J. J. Bachofen, Schiaparelli turned to unpretentious tomb inscriptions for clues to the meaning of the pyramids. From small amulets in pyramid form, which were placed beside the dead, he recognized the relation of the pyramid with the sun. Upon one amulet he saw "a pyramid emerging from **left** between two mountains" (p. 126), which looked like the hieroglyph of the "sun in its horizon."

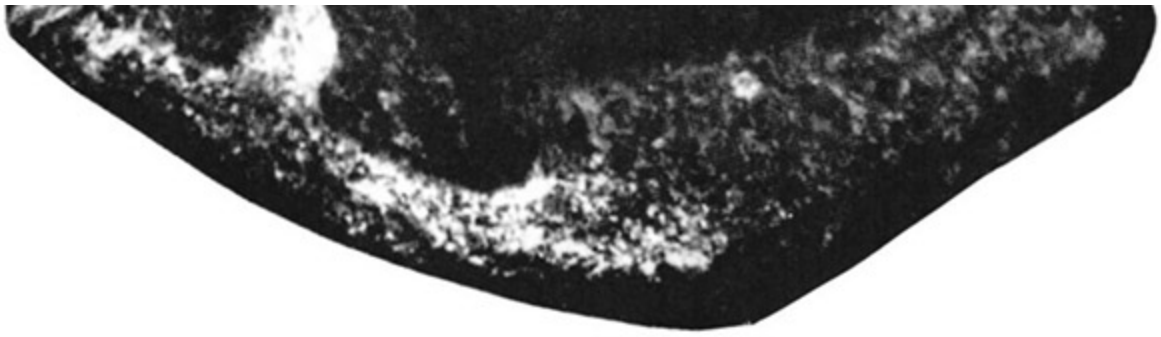
It is like a defense against later materialistic explanations when Schiaparelli stresses that "the generative conception of the obelisk was not a casual combination of geometrical lines but represented a bundle of solar rays, which emanate from the little pyramid [the pyramidion] which constitutes its upper extremity, and descend vertically to give warmth and fertility to the earth" (pp. 127-28), and recalls the eight sun-adoring cynocephalic (dog-headed) apes at the foot of the Luxor obelisk. (One of these is now in the Louvre.)

The masonry obelisk, as it first appeared in monumental size in the sun sanctuary of Ne-user-ra, had not been known before that time. Its shape, an **337** abstraction of the Heliopolitan baetyl benben, grew out of the shape of the Fourth Dynasty pyramid and was held to thereafter.

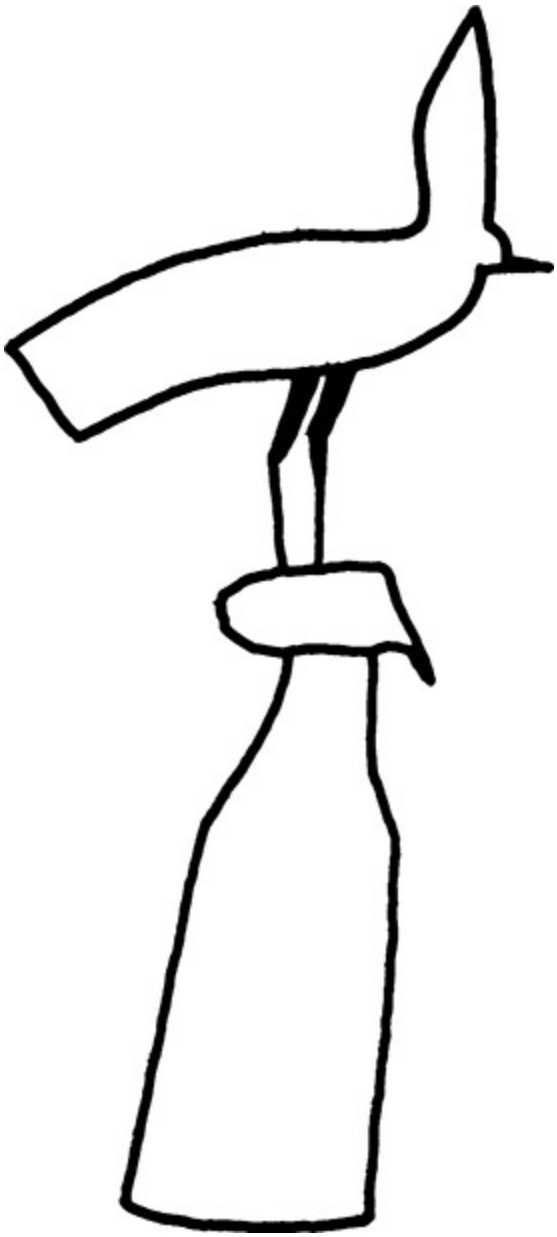
From inscriptions, Schiaparelli proved "the simultaneity of the cult of the soul of the dead Pharaoh buried in the pyramid with the cult of the sun represented by the god Ra and other divinities with essentially solar character, above all the goddess Hathor" (p. 132), who was simultaneously known as "Daughter of Ra" and "Mother of Ra": self-procreating, parthenogenetic, the ancient, everrecurring symbol of life and of the self-renewing sun. Schiaparelli here touches on a current theory that does not regard the pyramid as exclusively expressing the spiritually creative male element. In the Heliopolitan religion, the male principle — Atum-Ra — was the all-highest from which all the other divine forces emanated (Thausing, 1948, p. 124). The female principle "is that which is split off from the highest" (ibid.), but it was also included in the chthonic part of the pyramid as the maternal womb of the earth. This was later expressed on the lids of

sarcophagi, where the mother-goddesses Nut, Isis, and Nephthys are shown giving life and protection to the dead.

Schiaparelli's point of departure, in broad outline, was this: the pyramids were perceived not as isolated tombs but in a symbolic frame of relationships, which binds them together as similar "cult objects" *(oggetti di culto;* p. 132) with the primeval hill, the monolithic benben in the temple of Heliopolis, and the obelisks before the great temples of the New Kingdom. This conception of the **380** pluralistic meaning of the pyramid has since been widened, but Schiaparelli's approach is still basically valid.



BENOU AND BENBEN: *The crested bird from the shoulder of the kneeling man (fig. 220) probably represents the phoenix Benou, and the stone on which he stands the boulder which first emerged from chaos, the benben*



KNEELING GRANITE STATUE: *Three royal names are engraved on the right shoulder, also a bird perched on a conical stone. Second Dynasty*

Alexandre Moret: benben, pyramid, and obelisk

Moret, fifty years later, threw more light on the still obscure representation of the sacred benben stone of Heliopolis by showing how it was represented in the first dynasties. He referred to an archaic granite statue from the end of the **left** Second Dynasty. On the right shoulder of this kneeling figure the

royal names of three kings are engraved, each in its *serekh* — a rectangle that customarily contained the Horus name of the king — surmounted by the Horus falcon. They are preceded by "a bird with a crest which is not a falcon but probably the phoenix Benou; he holds in his claws the conical end of a stone baetyl whose form is vaguely pyramidal [conical]. I do not doubt that this is the Benou who shines on the ben, as in the Pyramid Text [Utterance 600]" (1935-38, p. 624).

The benben was originally a menhir, like many in the Mediterranean area and in other regions. In Heliopolitan theology it became the primeval hill, which the anthropomorphic god Atum drew out from chaos. Moret saw the relationship between the ben and the monoliths of the neolithic period (pp. 623-24). Referring to the name benben, Moret states that "the doubling of a root signifies repetition, or intensity" (p. 626). We can no longer agree with the opinions he developed from this, though the basic premise still holds good. The current belief is rather that "even the name of the stone is characteristic: benben, since it conceals the root *bn, wbn,* which is bound up with the notion of shining, brilliant, ascending" (Thausing, 1948, p. 122).

The masonry obelisk that appeared in the Fifth Dynasty is indeed "the final **337** development of the baetyl in its regularized form and in its role as the image of the sun" (Moret, 1935-38, p. 625). This is what Pliny the Elder meant when he stated in an oft-quoted passage that obelisks were petrified rays of sunlight.

The "perfect" obelisk as it arose in the Middle Kingdom is "a needle of stone on a square plan, terminating in a pointed pyramidion, with four faces, each of which is an isosceles triangle" (ibid.).

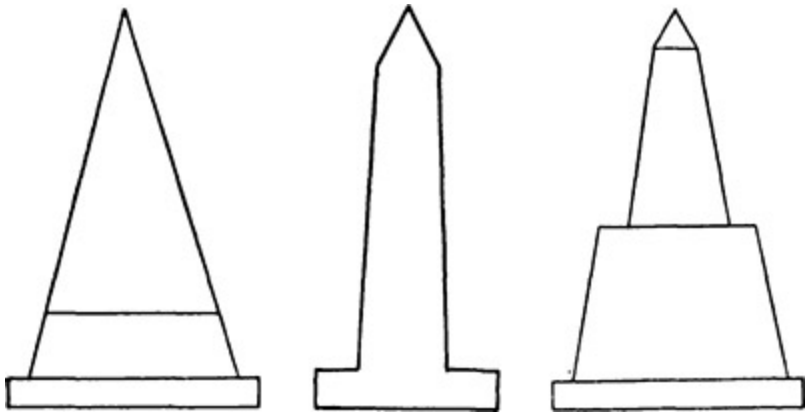
The symbolism of the isosceles triangle

Since the time of Schiaparelli it has been confirmed that the pyramid *Gestalt,* like that of the obelisk, did not arise from a casual combination of geometrical lines nor from a better knowledge of stone techniques, but that "the pyramid in Egypt was a symbol of the radiating sun" (Schiaparelli, 1884, p. 144). We also know that the characteristic triangular shape of its constituent elements was connected with changes in ritual which occurred in the Fourth and perhaps at the very end of the Third Dynasties, with the ascendance of the all-powerful solar cult.

There is general agreement that the form of the step pyramid is associated with the idea of ascending. “A stairway to heaven shall be laid down for him [the king], that he may ascend to heaven thereon,” says Utterance 267 of the Pyramid Texts (tr. Mercer, 1952, I, p. 89). This is not very different from the Sumerian view of the ziggurat as an intermediary to heaven, but in Sumer it was thought that the gods had their abode in the temple on its summit. The idea of a ladder was combined with the idea of a mountain rising upward. The ziggurat — the newly arisen mountain — was regarded as the center of the world wherever it stood.

As the step pyramid was replaced by the standard form of the pyramid, the form of an isosceles triangle with two horizontal lines representing the enclosure **below** walls became the pyramid hieroglyph *(mer*). This, by the way, suggests how late certain hieroglyphs were introduced.

The significance of the pyramid is undoubtedly multiple. One cannot reduce it to the single idea of a tomb, a ladder to the sky, a light cone, or the earthly symbol for the sun-god. It is all these and much more besides. Its all-embracing significance lies in the notion of the eternal wandering which was expressed in **274** Zoser’s early pyramid precinct and was given still more cosmic expression in the Fourth Dynasty pyramid complexes and in the great temples of the New Kingdom.



HIEROGLYPHS *of pyramid with enclosure wall (Fourth Dynasty*) *and obelisk (Fifth Dynasty)*

We finally approach very tentatively the meaning of the pyramid’s most important constituent, the isosceles triangle. Where did it come from? How can it be understood? It is an age-old symbol, used in prehistory; when pointing downward it represented the vulva as a fertility symbol. This was shown over and over again in *The Beginnings of Art.* **1:179 ff**

In this form it appears frequently during the fourth millennium in Mesopotamia and in Egypt, heavily incised on small female figurines — fertility symbols **1:177 ff** called mother-goddesses.

It was transformed during the early Sumerian period into an isolated abstract triangle. The masked face from Hassuna (Mesopotamia) — a fragment of the **100** earliest pottery — shows conspicuously how the residual space is filled up with black triangles, their points directed downward. Triangles painted, hatched, or crosshatched, arranged in rows, are very widespread in the area of the paintedvase culture in Asiatic countries and in Egypt (Baumgärtel, 1955, p. 56).

A fully preserved vase from Cemetery A in Kish (Mesopotamia) has its **101** handle treated as a female figure. The significance of the triangle just below the handle of this tomb vessel becomes even more obvious, since its dimensions are enormous in comparison with the flat, roughly indicated female figure along the handle.

Triangles pointing upward were also often used in the earliest Sumerian **200** period, as in an incense burner from Tepe Gawra.

In Egypt the black tulip beakers of the Tasian period — the oldest ceramics of Egypt — have two rows of almost-isosceles triangles with herringbone hatching: one row pointing upward and one row pointing downward, separated by horizontal bands.

The upward-directed isosceles triangle cannot be pinned down simply as a male fertility symbol. Its pluralistic meaning can incorporate the Mountains of the West and of the East as shown on an Amratian dish, where they are sur- **129** rounded by the primeval ocean and the ocean of the sky. The upward-pointing triangle has also been associated with an uprising flame and the downward-pointing triangle with water always flowing down to the deepest point, again involving aspects of male and female fertility (Schwabe, 1951, p. 154).

The hieroglyph of the pyramidion — the symbol of the sun and abode of the sun-god — is a black triangle.

As to the direction of the triangle, there may have been a change from a chthonic period, when the symbol of female fertility prevailed, to the prevalence of a male hierarchy which found its most complete artistic expression in the pyramids of the Fourth Dynasty.

The symbolism of the square

The pyramid is a volume. Its four triangular planes are but its constituent elements. Their external form arises from the processes of abstraction undergone by the sacred benben stone. The way this was accomplished is typical of the symbolization that underlay everything.

Numbers had not only quantitative properties in the earliest high civilizations, but also qualitative ones, frequently cosmic and divine. The single numbers from one to ten had a special meaning in the different cultures: in the sexagesimal system of the Sumerians, in the decimal system of the Babylonians, and the numbers seven and nine for the Greeks.

Sethe says that one can consider the number four "as, so to say, the sacred number of the Egyptians. . . . The outstanding position of this number is based upon our conception of outer space, the four directions of the heavens (the corners of the world, the supports of heaven . . .), the four winds. . . . The four faces of certain gods and demons (Pyramid Texts, §1207b), or the four horns which certain demonic animals are supposed to possess, one for each direction of the heavens (§470a), are all directly bound up with this conception" (1916, p. 31).

Kees, who enlarged Sethe's theory, thought that one reason for the sacredness of the number four was the natural configuration of Egypt, that it was "incited by the division of the land into 'Upper' (south), 'Lower' (north), 'Right' (west), and 'Left' (east), predestined by the course of the Nile as the central axis. . . . From this complementary reciprocity, the Egyptians derived the four quarters of the world. In accordance with the four directions of the heavens, the sky for them rested upon four pillars" (1941, pp. 167-68). Further examples are the fourfold canopic jars for the intestines, the fact that every purification and consecration must be repeated four times, and many more.

The square, as far as we can see, was the most complete plastic expression of **Part XI** the sacred number. Unalterably the square formed the basis from which every true pyramid arose. The interplay between pyramid and cosmos is made clear beyond question by the great precision with which each is oriented to the four cardinal points.

PART IX THE GREAT TEMPLES AND THE ETERNAL WANDERING

Seldom in the history of architecture have the preliminary stages of monumental buildings been so indistinct as in the temples of the New Kingdom.

Such remains of sacred buildings from the Old Kingdom as exist provide no reliable key to the vanished monuments. Temples of the Fourth Dynasty, such **325** as the valley temple of Chephren at Giza, which is the best preserved, are not shrines in the strict sense of the word. They are but a part of the complex cult of the dead and are directly related to the pyramids. The same is true of the sun temples of the Fifth Dynasty, situated at the rim of the desert plateau within **335** the region of the necropolises, for instance the sun sanctuary of Ne-user-ra at Abu Gurob, south of Giza.

Nor can preliminary stages be found for Middle Kingdom buildings. No conclusions can be drawn from the small shrine of the time of Amenemhat III, at Medinet Madi on the edge of the Faiyum, in the north, or from the delightful Heb-Sed pavilion of Sesostris I at Karnak in the south. Maybe the true precursors of the great temples still lie buried in the Nile mud or beneath tilled fields.

I have no intention of recounting the history of the great temples, but only of raising one question: What is the significance of these monumental structures, the greatest in the archaic world in terms of size and of energy consumed?

The colossal temples of the New Kingdom are unprecedented. Their cyclopean dimensions had never existed before and occurred only rarely later. They are manifestations of a world empire that had mastered the art of displaying its power. The temple of Amon at Karnak was officially styled the "Throne of the **before 355** world," and its proportions were in keeping with its name. The precincts were enclosed by a crude brick wall 7500 feet in length and 25 feet thick. Parts of this are still standing, and C. Robichon, the architect and archaeologist, was able to place his studio upon it.

258 col The most spectacular building is the hypostyle hall of the temple of Amon, with its 134 columns. This dates from the time of the earlier Ramessidcs. If we take a modest temple built during the reign of Sesostris I (1971-1929 B.C.) as the beginning of the building activity

associated with the temple of Amon, and the unfinished Pylon I as the end, the whole covers nearly eighteen hundred years.

(It is true that Pylon I is mentioned in an inscription of Sheshonq I, yet it is generally agreed today that it was erected under the Ptolemies [Hölscher, 1943, pp. 139-49]. It was never finished, and it lacks the inscriptions and reliefs which cover the other wall surfaces.)

During the Eighteenth and Nineteenth Dynasties, the names of several great Pharaohs were associated with Karnak: Hatshepsut, Tuthmosis III, Amenhotep III, Ramesses II. The impressive forecourt of the Ramesside hypostyle was not added till after 950 B.C. by Sheshonq I (925-915 B.C.), founder of the Libyan (Twenty-second) Dynasty, which made its capital at Bubastis in the Nile delta, about forty miles northeast of Cairo. This forecourt, 338 x 276 feet, is the biggest ever built during the first high civilizations.

THE CONCEPTION OF THE TEMPLE

Throughout the long period of the New Kingdom, the basic conception of the temple as tripartite remained unchanged. The actual abode of the god, the innermost sanctuary, was modest in size, and its entrance was sealed. In the temple of Amon, the seal was broken by the Pharaoh in person, on processional occasions. An antechamber housed the sacred bark on which, within a naos, the image of the god was carried during processions. In some temples — Luxor, for instance — the approach to the sanctuary and its adjacent shrines was by open colonnades, but in the type that became the established version the approach was through a roofed hall of columns: the hypostyle. An enclosed court, usually surrounded on three sides by columns, with the high pylon on the farthermost wall, cut the temple off from the outer world.

This architectural scheme, which reappears with many variations in its detail, differs as widely from later Christian cathedrals as the two religious systems they manifest. The ground plan of the great temples corresponds exactly to the profoundest Egyptian beliefs. The Egyptian, who remained faithful to his ancient creed for thousands of years, recognized no standstill in life or in death. His approach to the world was based upon the alternation of constancy and change. Days, seasons, sowing, and reaping, all revolved in perpetual motion with the heavenly bodies and were intimately associated with them.

It was this eternal progression and eternal recurrence, the sublimation of an eternal wandering, that was given form in the organism of the temple. The Egyptian regarded a building, especially a sacred building, with other eyes than ours. Our notion of a work of art as inherently inviolable was foreign to him. All was subordinated to the religious idea. The Egyptian regarded the temple as he did his own body, as something living, growing, decaying, and again coming to life.

The blocks from thirteen different monuments excavated by H. Chevrier from the foundations of the pylon of Amenhotep III (1400-1362 B.C.) — Pylon III, which later formed the back wall of the great hypostyle — cannot possibly be taken for rubble or the result of sacrilegious destruction. They

had been carefully placed, and their reliefs were so perfectly preserved that Chevrier was able to reconstruct, from some of them, a gem of Egyptian architecture: the little **364** colonnaded pavilion of Sesostris I, of the Middle Kingdom. The delicacy of its **92** reliefs can stand comparison with those of the early Italian Renaissance.

The exact position of these blocks in the foundations in which they were discovered was not recorded by the excavators at the time and cannot be determined now. That parts of earlier buildings were sown symbolically, like seeds, in later foundations, has been clearly demonstrated by the circle of Egyptologists associated with Alexandre Varille (1909-51), who died prematurely in an accident. In Mesopotamia, precise investigation of the parts of a building lying below ground was a natural archaeological procedure, since there was little else to investigate. It was different in Egypt. There, new studies of foundations, based on their symbolic meaning, led to the discovery by Varille and Robichon of two unique oval shrines; and in the temple to Amon-Ra-Montu at Karnak, they discovered several courses built up of blocks which had been used before, and whose positions, as well as the reliefs upon them, had definite significance (Varille, 1954, p. 23).

This notion of deliberately including stones from an earlier temple in order to give added spiritual force to the new structure is quite foreign to the conception of a Christian church. So is the idea of eternal wandering, which is manifested in the continuous extension of the temple.

The great temple of Amon at Karnak was extended in two directions. Its **before 355** entrance was moved steadily forward toward the Nile. New gateways were built, one after the other, in this westerly direction, and their pylons (I-VI) grew like the sections of a telescope; the height of the final Ptolemaic one **382** (Pylon I) reminds us of an early Chicago skyscraper. The second extension stretched southward, with four pylons (VII-X), oriented toward the temple of Mut, consort of Amon.

The interior layout of Egyptian temples further expresses the idea of wandering. With the exception of the small, dark cella, where the god dwelt in his image, and its immediate surroundings, everything was conceived of as a passage. There was no such thing as a fixed, static plan that continued to enclose the same space; with time, the spaces might change in both form and size. There was no major interior space to receive the faithful attending

a dogmatic religious service, as in a Christian basilica. It was neither needed nor desired, since the whole was conceived as a place of passage.

To do justice to the structure of the Egyptian temple, we must understand the *cause* of its difference from the church: the predominance of rites over dogma.

Rites, not dogma

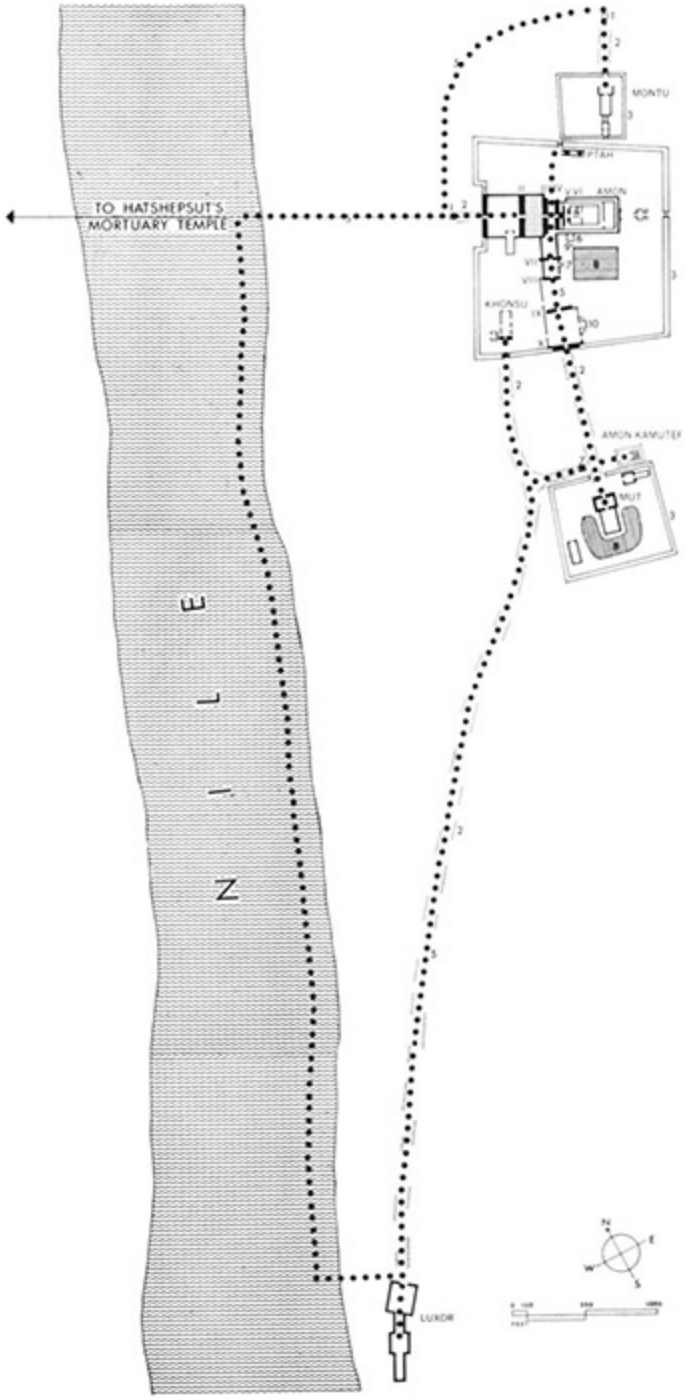
One of the bonds between the prehistoric age and the first high civilizations is the prevalence of rites. Rites were far stronger than any clearly defined, rigidly fixed dogma. Dogma in the present sense did not then exist. It would have been contrary to the spirit of the whole religious structure. How could a dogma be **42 ff** established when in Egypt three or four male and female deities existed simultaneously, each being the one supreme creator of the universe? Each was, quite simply, the representative deity of a particular religious center. Heliopolis, the ancient center of worship, had established Ra, the sun-god, as supreme deity in connection with its system of sun adoration. In Memphis, only a few miles away (founded as capital city at the time of the union of Upper and Lower Egypt), Ptah reigned as the chief god. In his function as creator of the universe, the aspect upon which most stress was laid was his power of invention, his creative imagination. Similarly, different centers possessed different numbers of major deities: in Heliopolis there were nine (Ennead); in Hermopolis, in Middle Egypt, there were eight (Ogdoad).

The confusion and contradictions we feel in all this are inherent in the character of the Egyptian gods, with their pluralistic, polymorphic manifestations. The strangest metamorphoses of god and animal were taken for granted, as was the fusion of one deity with another — Isis with Hathor, for example. Just as one Pharaoh often obliterated the name and usurped the statue of a predecessor, so one god took over the character of another, as the imperial **82 ff** Amon took over the nature and appearance of the ithyphallic Min. Under such conditions, no clearly circumscribed dogma could come into being.

There was a constant endeavor to achieve some accord among similar deities who differed only slightly in name or attributes. As a result all

falcon-gods became united under the name of Horus and most cow-goddesses under the name of Hathor.

HATSHEPSUT'S SACRED WAY AT KARNAK: *The sacred way, bordered by sphinxes, on the north-south axis leading from Hatshepsut's Pylon VIII to the sanctuary of the fertility-goddess Mut*



THE SACRED WAYS: Approximate routes of some of the Sacred Ways leading out from the Sanctuary of Amon at Karnak

Key

1. Wharves
2. Avenues of sphinxes

3. Walls of temple precincts
4. Sanctuary of Amon
5. Approximate routes of Sacred Ways
6. Edifice of Taharqa
7. Repository chapels
8. Sacred lakes
9. Giant scarab
10. Jubilee temple of Amenhotep II

The overpowering strength of rites was expressed in the festivals around which religious life circled. The themes of these festivals were not transcendental. They were earth-bound and, like earlier prehistoric rituals, dedicated for the most part to fertility and the propagation of life. The months bore the names of the chief festivals, which sometimes lasted several weeks. The springtime awakening of nature was celebrated at the New Year festival and the eternal renewal of fertility at the harvest festival. Just as in the countless neolithic and bronze age rock engravings of Norway and Sweden everything centered on the seasons, so in Egypt everything was earth-bound and related to earthly existence. Life in the beyond was a copy of life on earth: what had been temporal on earth was transferred to eternity without in any way changing its character.

The main subjects of the large reliefs that unfold along the walls of New Kingdom temples are the processions of these festivals of harvest and fertility. Every incident was deliberate and essential, as was every act performed by the Pharaoh, who accompanied the statue of the god on its annual pilgrimage from **362** one sanctuary to another.

We shall return to these rites depicted in relief on the most conspicuous walls of the temples of Karnak and Luxor. They present what are perhaps the most complicated rituals ever devised by a priesthood. Although they contain the germs of dogma, they are not the outcome of dogma. They replace it.

A dogma is rigidly fixed and must be obeyed in letter and in spirit. It cannot permit the contradictions that are found everywhere in Egyptian beliefs. Dogma in its original Greek meaning signifies something fixed, something legally binding. Dogma involves a law, and two or more differing laws cannot exist side by side.

Ethnologists have often pointed out that the principle of identity, which has been the foundation of logical thought since the Greeks, had no

meaning for prehistoric and primitive man. In the domain of religion this is valid also for the first high civilizations. The principle of identity lays down that an object *A* at one moment of time is identical with the same object *A* at another moment of time. The Egyptians were the first to achieve the utmost accuracy in the field of geometrical mathematics by the use of this principle of identity. But logic made no entry into religious rites. In logic, how would it be possible for the believer **Part II** to recognize his god simultaneously in the form of a beetle, a lion, a goose, and a shrew?

Vagueness and inconsistency in the religious sphere never bothered the Egyptian spirit. Dogmatic controversy never caused religious wars in Egypt. The only serious uproar occurred when Akhenaten (Amenhotep IV) tried to abolish the pluralistic and polytheistic character of Egyptian beliefs and to substitute the absolutism of sun worship (Aten). Despite fundamental differences, it is just this indeterminate quality, this refusal to rationalize relations with the invisible powers, which signifies a continuity with prehistory. Behind it lies the urge to have many ways of making contact with the unforeseeable, unconfined by dogmatic laws. This is perhaps not so strange as it may appear: it is a direct reflection of the never-stable destiny to which everyone is forced to submit.

The sacred ways

The entire interior organization of the temple grew from the most profound beliefs of the Egyptians. These, like nature itself, never came to a standstill. Compared with later ecclesiastical buildings — Christian or Moslem — the Egyptian temple is full of forbidden areas and taboos. The prehistoric tradition of placing sanctuaries in the most hidden places — inaccessible except to initiates — is continued in the dark cella where dwelt the image of the god. The enclosing walls and tall pylons also bear witness to the necessity of shutting off the sacred precincts. A combination of sacred and secular buildings, like a Roman temple in a forum or a medieval Christian church amid dwelling houses, would have been unimaginable.

The idea of eternal wandering left its traces not only upon the interior organization of the temple, but also upon the relation of one sanctuary to another. Each Egyptian temple stood in inner relation to others. An

elaborate web of sacred **before 355** passageways, of sacred approaches, led from one to another.

Ceremonial processions, with the image of the god hidden in the naos of the sacred bark, wandered at great festivals from one temple to the next, so that the sacred image could be housed for a short time in another sanctuary. Again and again boats — those symbols of movement — are displayed in reliefs on tombs, temples, and obelisks. Boats were inseparably bound up with ceremonial rites.

Boats as symbols of the daily journey of the sun and the wandering journey of the gods and the dead are not limited to a single culture; they can be found almost everywhere. The situation in Egypt differs in that here a high civilization at the peak of its development employed the symbolism of the boat as the bark of a deity and gave it a central position in the ritual. The divine barge was preserved in the most holy part of the temple, whose form and construction hark back to prehistoric times.

Among the partially prehistoric rock engravings in the Nubian desert and in the Wady Hammamat, and in the representations upon Predynastic ceramics, we find again and again that boats play a prominent part. According to Helene Kantor, these boats often have "an upper booth the shape of which is similar to the hieroglyph for the Upper Egyptian shrine" (1944, p. 124). On a Hierakonpolis **360** wall painting from the late-Gerzean period, or just before the opening of history, "the largest ship of the wall painting is the most interesting of all, for on top of the second cabin is placed a lightly built kiosk. . . . Inside is placed a figure, probably male, faced by another figure standing outside" (p. *115*). In this curving, somewhat S-formed roof and the seated man beneath it, we can recognize the prototype of the Heb-Sed pavilion for the jubilee of the reign as **268** it appears on a relief from the Middle Kingdom. The Hierakonpolis painting also shows the form and structure of the divine bark as it was represented even in the New Kingdom. The ship as a symbol of eternal wandering never lost its **362** deep-rooted significance or its primeval aspect. The deities standing erect in their boats upon astronomical ceilings, or in the two sun boats of the heavenly **143** oceans finely engraved upon sarcophagi of the Late Period, stand eternally under **135** the spell of a journey that never ends.

Even in the excavations at Helwan, of the First Dynasty (Saad, 1951), boats were found buried by the side of very humble graves. In 1955 Emery discovered at Saqqara a funerary boat, also of the First Dynasty, close

beside the mastaba ***272*** of the Pharaoh Wedymu and within its enclosing wall. The most splendid boat of all (41 m. long, 7 m. high) was discovered in 1954, in a perfect state of preservation, at the foot of the south face of the Cheops pyramid. It was built of cedar of Lebanon and had a large cabin; even the ropes that bound its ribs together were still there. The rudder is carved with an arrow: the light, the sunbeam, the arrow of Neith. Opinion is divided as to the purpose of this beautifully constructed boat. Probably it was used to transport the dead king from his residence to the valley temple. It was the fourth found near the great pyramid. Whether these boats were meant to accompany the god Ra on his daily journey or whether — as is now believed — they were vehicles for the journeyings of the dead is of no great importance in this connection.

Just as the dead had their boats, so the little image of the god had his sacred barge, in an antechamber of his cella. We know exactly how the barge rested in the antechamber on a kind of sledge, and how it was borne on the priests' shoulders (Legrain, 1916, p. 6). It never touched the water. When it traveled on the Nile it was transported (for instance from Karnak to Luxor) upon a magnificent Nile barge.

Along the route, there were resting places in the form of repository chapels. These generally had two parallel walls, each as long as the sacred barge, and were open at either end. They served as stations on the sacred journey from temple to temple, and their careful adornment may indicate that rituals were associated with each halt. Many of them were surrounded by colonnades, and their walls and pillars were often decorated with delicate reliefs, as described by Borchardt (1938). One so ornamented is the charming pavilion of Sesostris I. **364**

COLOSSAL GRANITE SCARAB: *Consecrated to Amon-Khepri-Ra. It was carved from the same block as its cylindrical pedestal and stands at the northwest corner of the sacred lake*

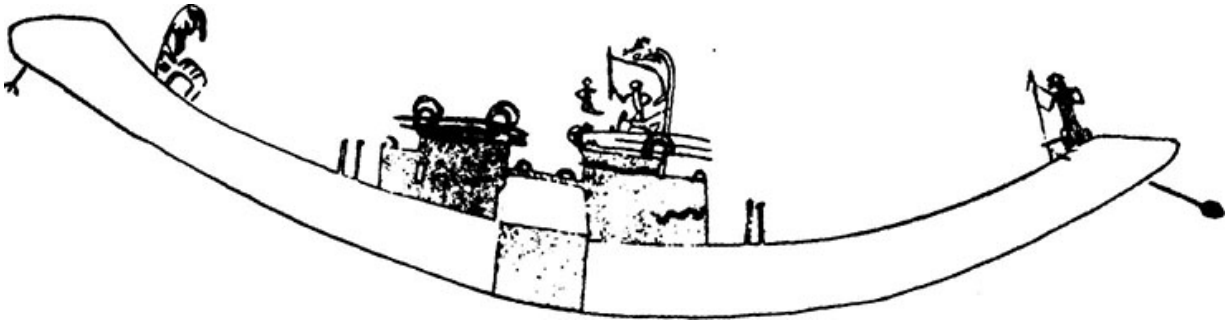
In all probability, the original route followed by the image of the god was entirely overland. Inscriptions on blocks from the sanctuary of Hatshepsut at Karnak, found in the foundations of the pylon of Amenhotep III, show that the ceremonial progress of Amon, from Karnak to Luxor, during the "Beautiful festival of Opet," still went overland in Hatshepsut's time, resting on the way in six repository chapels (Ricke, 1954, p. 40).

The network of sacred roadways radiating from the temple of Amon at **before 355** Karnak led to various sacred places in its immediate vicinity; to the temple of Mut, consort of Amon and mother of the gods; to the temple of Khonsu, the son of Amon; to the sacred lake, indispensable to certain rites, and elsewhere. The north-south axis led mainly to sanctuaries devoted to fertility cults, male and female. The temple of Mut, approached by Hatshepsut's avenue of sphinxes, was **354** built in its present form by Amenhotep III and populated with hundreds of **71** lioness-headed statues of the goddess; it remained in use up to Ptolemaic times. A short distance away stood the sanctuary of Min, the male fertility-god, and close to the temple of Amon himself was the sacred lake, probably devoted to the solar cult and eternal rebirth. It was once bordered with carefully hewn stone blocks, but only fragments of these remain. At the northwest corner of the lake stands a gigantic stone scarab, carved from the same piece of granite as its **left** cylindrical pedestal. It was dedicated by Amenhotep III to Amon-Khepri-Ra *(khepri* = scarab): the sun of the evening, the morning, and noontime.

In addition to the roadways there was the waterway — the Nile. Ramesses II laid out a monumental approach to it. On the east-west axis of his great hypostyle he built an avenue of ram-headed sphinxes leading directly to the river, **51** just as Amenhotep III before him had built an avenue of sphinxes as a land connection between Karnak and his newly erected temple at Luxor.

When the image of the god, borne from its Karnak sanctuary, reached the east bank of the Nile, its sacred barge was taken on shipboard. The ships used to transport it were made of cedarwood and were of considerable length (130 cubits, about 220 ft.). Their hulls were sheathed in gold and silver "up to the water line. . . . The shrine was adorned with electrum, gold, silver, and jewels" (Wolf, 1931, p. 51).

PREHISTORIC NILE BOAT *(Nagadah period): With two raised booths, one surmounted by two figures sheltered by a canopy. Drawing upon pottery vessel. From Kantor*



PREHISTORIC NILE BOAT *(Gerzean period): With two raised booths. On one of them a seated figure, beneath a canopy whose form was retained thereafter for the royal pavilions at the king's jubilee (Heb-Sed) festivals. Wall painting from Hierakonpolis. From Kantor*

On arrival at the west bank, the journey of the sacred image continued overland to the necropolis of Thebes, to the mortuary temples of the rulers of the New Kingdom. The earliest and most splendid approach had been formed by the **262 col** ramps and terraces of the temple of Hatshepsut at Deir el Bahari. This entire precinct was designed as a reception way for the god Amon, whose barge was **419** slowly borne between the sphinxes of the queen to the sanctuary dedicated to him on the uppermost terrace. This only took place in the few years before Hatshepsut's funerary temple was defaced.

Later — at any rate under the Ptolemies — the wanderings of the gods extended even farther. The image of Hathor was carried more than a hundred miles up the Nile to Edfu for her *hierosgamos* with Horus.

THE GREAT TEMPLE OF AMON AT KARNAK

We will not start with the most spectacular building at Karnak, the great hall of Ramesses II, but with the beginnings of the temple of Amon, the place of his innermost sanctuary, even though this part is beset with questions and uncertainty.

The original limestone temple of Sesostris I (not to be confused with his pavilion, or repository chapel) was the starting point of all later building developments. Its site is today a space vacant except for a few blocks of stone. According to P. Barguet, the temple consisted of a festival (Heb-Sed) hall and three small rooms one after the other, the final one being the sanctuary of Amon, where a pedestal was found, made for a statue of the god and carved with the name of Sesostris I (1953, pp. 145-55). The limestone blocks of this temple have long since found their way to the grinding mills. It is possible that Tuthmosis I, inaugurator of the great building period at Karnak, demolished the temple about the end of the sixteenth century B.C. (Scharff and Moortgat, 1950, p. 124).

The temples of the Tuthmosids

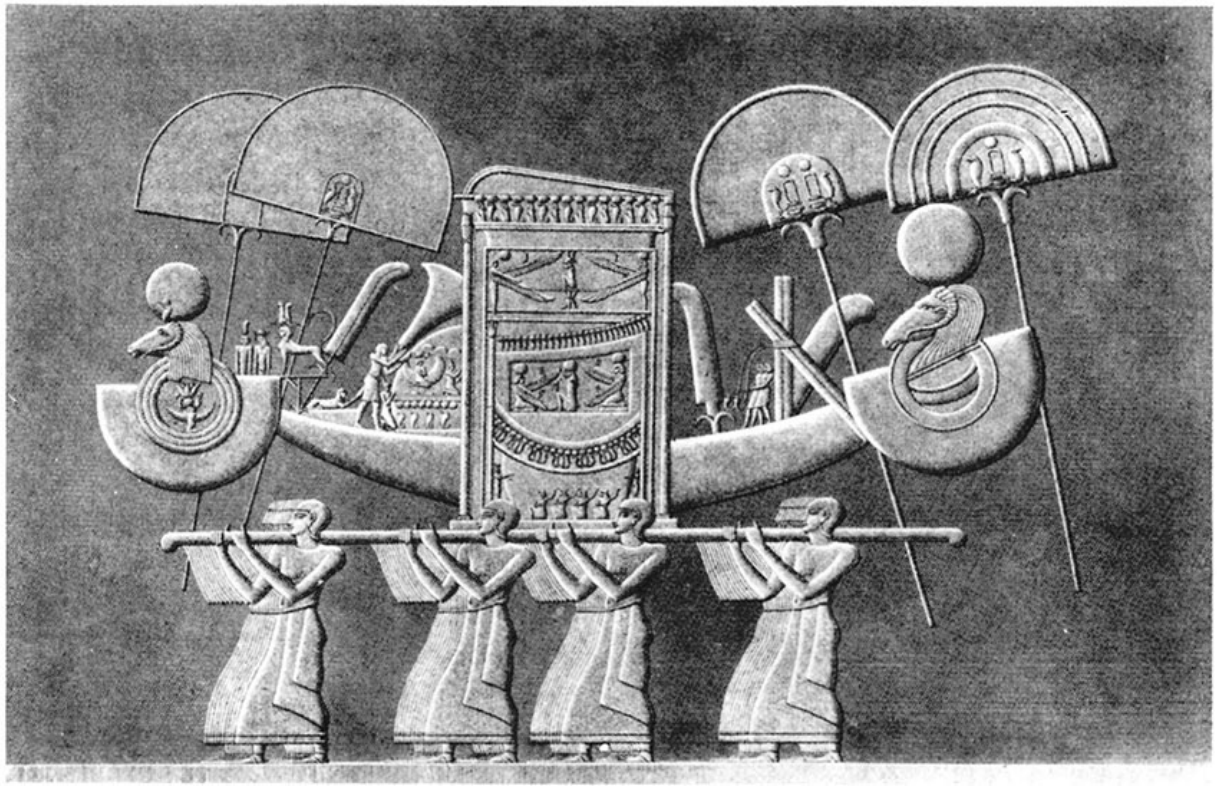
The rule of the Tuthmosids in the New Kingdom marked the rise of Egypt to world power. Tuthmosis I pushed the southern frontiers almost to the Fourth Cataract and the eastern ones to the Euphrates. He became a great builder, an interest inherited by both his daughter Hatshepsut and his grandson Tuthmosis III.

Tuthmosid architecture never strove for the colossal dimensions of the Ramessides who impressed their unmistakable mark on the imperial sanctuaries some three centuries later. Though it attained, at times, huge dimensions (the pylons), it remained delicately structured and never lost touch with the human scale (Hatshepsut's mortuary temple, Tuthmosis III's festival hall). Four of the ten pylons at Karnak were erected by the Tuthmosids. Tuthmosis I built two of these huge portals (now Pylons IV and V), one immediately behind the other. **386** By means of an enclosing

wall, he incorporated the ancient temple of the Middle Kingdom into his newly built complex. Whether an open court was thus formed, as appears in Borchardt's reconstruction, is now questioned.

The hypostyle of Tuthmosis I

Between the high walls of his two pylons there was room for a narrow hall set crosswise to the main axis. In his time its wooden ceiling was supported by a single row of wooden columns. This was the hypostyle of Tuthmosis I. The outer pylon, IV, was considerably larger and more massive than the other, and **365** up to the time of Amenhotep III (1400-1362 B.C.) it formed the entrance to the temple of Karnak. Before the two towers of this pylon Tuthmosis set up two granite obelisks. Throughout the age of the Tuthmosids, the main east-west axis, which was later given massive emphasis by Ramesses II's great hypostyle, ended at this pylon.

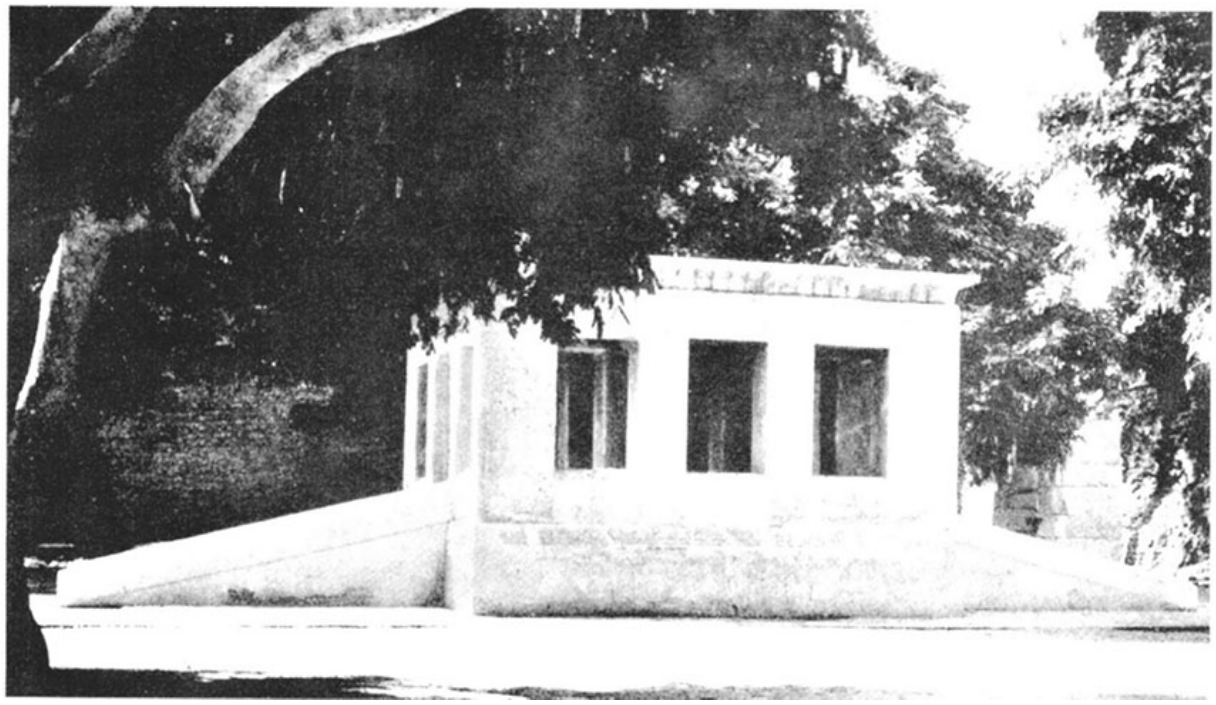


RAMESSES II OFFERING INCENSE BEFORE SACRED BARGE: *He carries a triple incense burner in his left hand, and with his right he throws grains of incense onto it, their trajectory indicated by a curve of dots. South wall of great hypostyle, Karnak*

SACRED BARGE IN PROCESSION: *The sacred boat, carried on the shoulders of the priests, contains a small cult statue of Amon which was transported on certain festivals to rest for a short while in another sanctuary. Relief from great hypostyle hall, Karnak. From "Description de I'Égypte"*

SACRED BARGE ON PRIESTS' SHOULDERS: *The hawk-headed priests carry the barge in ranks of five, pacing backward and forward and announcing the will of Amon. South wall of great hypostyle, Karnak*

In the cramped space immediately in front of and behind the innermost sanctuary, the buildings were so huddled together that by the end of the Tuthmosid era they had become interlocked. This crowding was partly due to Tuthmosis III's efforts to destroy all Hatshepsut's erections.



REPOSITORY CHAPEL FOR SACRED BARGE: *Resting place for the sacred barge on its processional journeyings, with ramps at both ends and openings all around: earlier used as Heb-Sed pavilion. Sesostris I, Middle Kingdom*

Hatshepsut's obelisks

In the narrow hypostyle her father had built, Hatshepsut set up two obelisks of **367** Aswan granite, possibly to enhance the entrance to the new sanctuary she had erected behind it. The latter lay between Pylon V and the old temple of the Middle Kingdom and was intended as a shrine for the barge of Amon. To left and right it was flanked by smaller chapels decorated with reliefs. Nothing has remained of this shrine except some blocks with reliefs, which were discovered in the foundations of the pylon of Amenhotep III (now Pylon III). Hatshepsut's nephew and co-ruler, Tuthmosis III, bore the queen such hatred that he destroyed as many of her works as he could. Among them was this red quartzite building, which he partly replaced with one of his own.

Hatshepsut's two granite obelisks, which were just over ninety-seven feet high, had a happier fate. She was particularly proud of them. They were the result of seven months' labor, and their transport from Aswan is recorded on her reliefs at Deir el Bahari. Their pyramidions were of pink granite sheathed with electrum (silver and gold). They were "to rise to

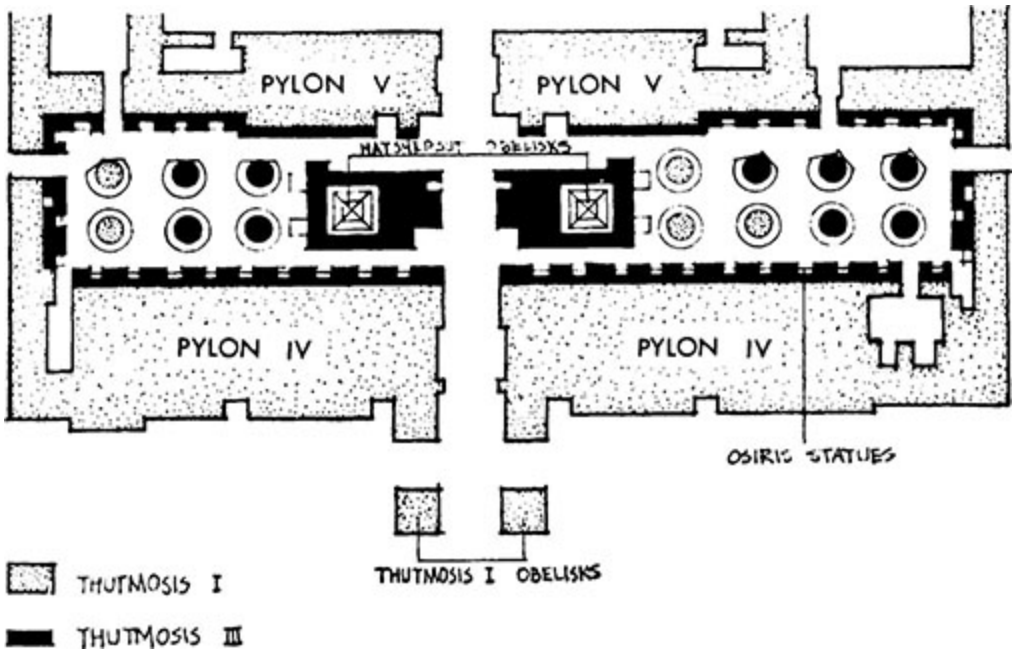
heaven, to be seen from far and wide from both banks of the Nile, and to illuminate Egypt like the sun" (Bissing, 1949, p. 161). Tuthmosis III enclosed them within a tower above which soared only the parts sacred to Amon. One of them still stands that way today.

Between Hatshepsut's granite shrine for the barge of Amon and Pylon V, Tuthmosis III built a hall of annals to contain the records of his great feats and campaigns. Some of its beautiful heraldic pillars still remain, bearing, in rarely-used high relief, symbols of the north and south; papyrus and lilies, with small flower buds and long stalks stretching the entire height of the pillars.

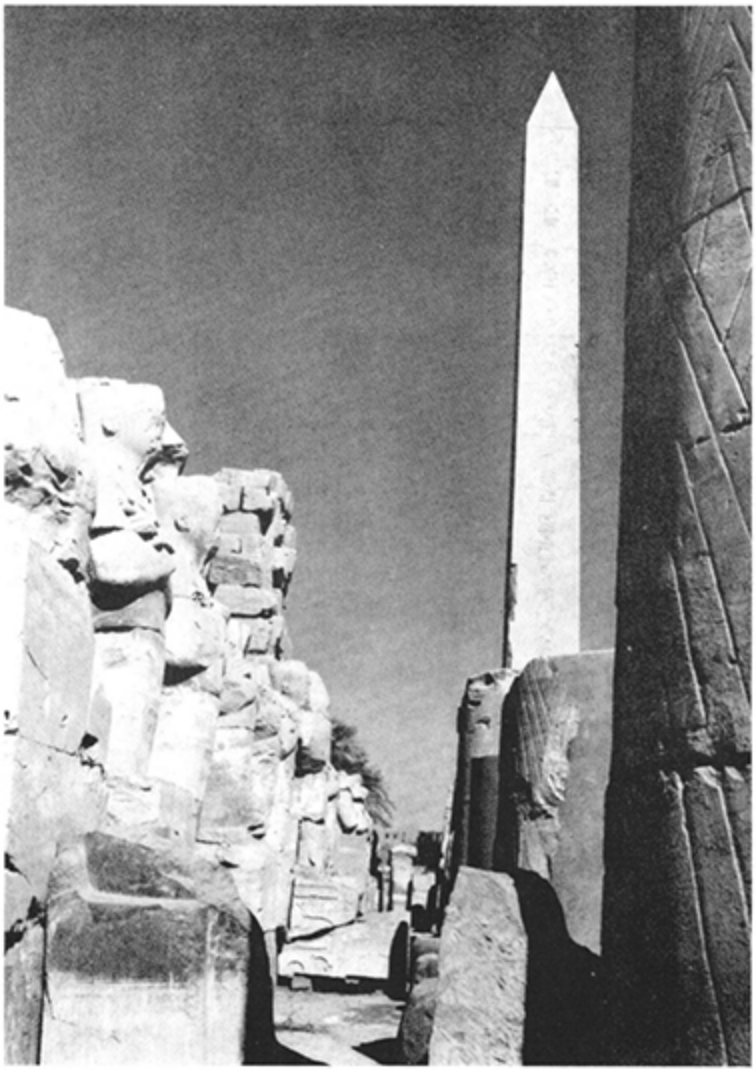
This building was squeezed into the huddled complex in front of the innermost sanctuary. If we had nothing else of Tuthmosis III, we would have a very poor picture of the character of the great conqueror. But to the cast, just beyond the Middle Kingdom temple, he erected a sacred palace that can stand comparison with Deir el Bahari. In its whole articulation, spatial and structural, it is an apex of Egyptian architecture. Structurally, it was never surpassed. This building, whose real purpose is unknown, is called the festival hall. The architecture of the early Eighteenth Dynasty, which had had its birth at Deir el Bahari, was here further developed.

The tectonic festival hall of Tuthmosis III

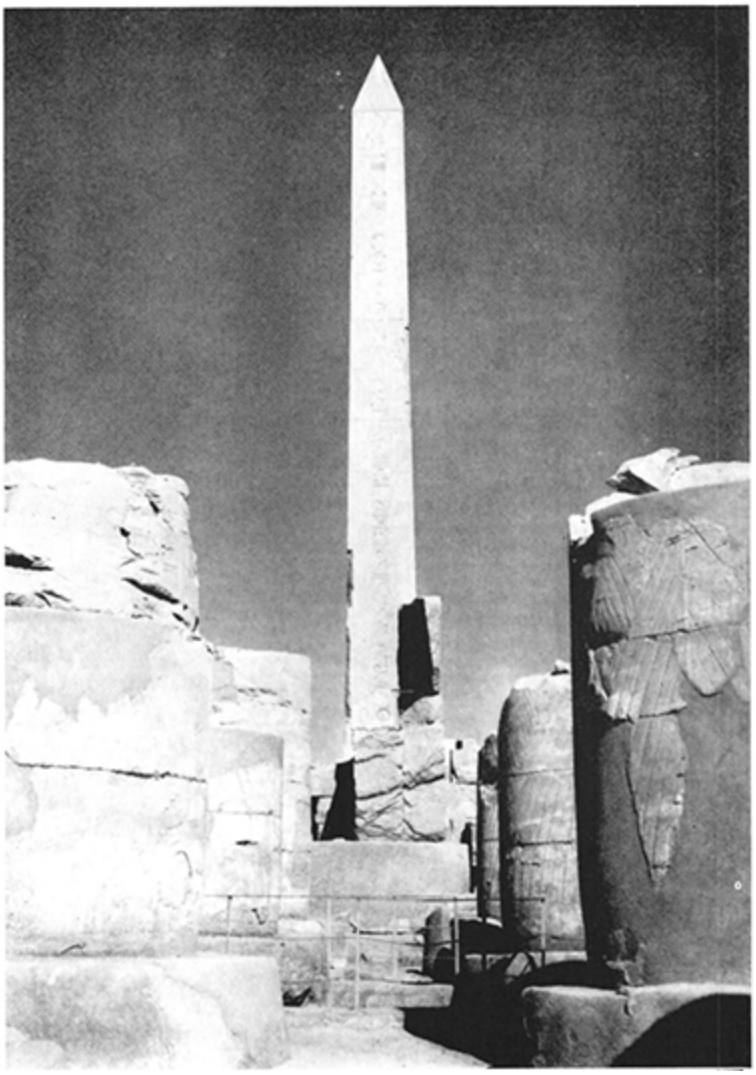
At the extreme east of the great temple, even behind the remnants of the Middle Kingdom sanctuary, lies the festival hall, or better, the festival building of **369** Tuthmosis III. Its Egyptian name, Akh Menou ("Brilliant monument"), has been variously interpreted. It served as the place of the royal jubilee festival, and simultaneously as a kind of "temple of fame" glorifying the deeds of the great conqueror.



GROUND PLAN OF HYPOSTYLE HALL OF TUTHMOSIS I: *This narrow hypostyle hall was originally roofed and had a single row of wooden columns. After Chevrier* ■■I



LEFT AISLE, HYPOSTYLE HALL OF TUTHMOSIS I: *A row of colossal Osiris statues stands along the northern wall. Hatshepsut replaced the wooden columns with stone ones and planted her two obelisks in the center of the longitudinal axis*



CENTER AISLE OF HYPOSTYLE HALL OF TUTHMOSIS I: *One of Hatshepsut's rose granite obelisks still rises over ninety-seven feet high. Around it are remains of the sandstone structure erected by Tuthmosis III to hide it. The height of this obelisk was only surpassed by Tuthmosis III's single one, placed behind his festival hall*

This is a unique building type: a hypostyle hall surrounded on three sides by large and small chambers. It had no successors, and one can well understand that Vandier found it “à vrai dire, assez mystérieux” (1955, II, p. 900).

That the festival hall was included in the processional itinerary of the bark of Amon-Ra is indicated by a repository for the sacred bark close to the south entrance, by the provision of space for turning it around, and by other details, such as the downward-tapering columns of the central aisle, especially the form of their capitals. These are a transformation into stone

of the slim wooden columns which, since the First Dynasty, had served to support the canopy of **right** the Heb-Sed pavilion. Their circular bases are slashed off along the center aisle, as in the sanctuary of Luxor, to permit the unhindered passage of the sacred bark, carried on the shoulders of the priests.

The Akh Menou was at the same time a thank offering to the principal gods for the success and glory they had bestowed upon Tuthmosis III. This is intimately combined with a display of his person and his deeds. In the Hall of Ancestors Tuthmosis is depicted making offerings to the names of fifty-seven kings whom he regarded as his predecessors: the so-called Karnak Tablet of the Kings, now in the Louvre. One of the columned chambers still contains reliefs of rare plants and animals which Tuthmosis III brought back from his many campaigns in Syria, displaying an interest in the introduction of exotic fauna and flora similar to Hatshepsut's as shown in earlier representations of products of the land of Punt (Somaliland).

This festival hall remained in use over a long period. More than a millennium later, Alexander, in a restoration of one of the chambers, substituted his own image for that of Tuthmosis III sacrificing to the gods.

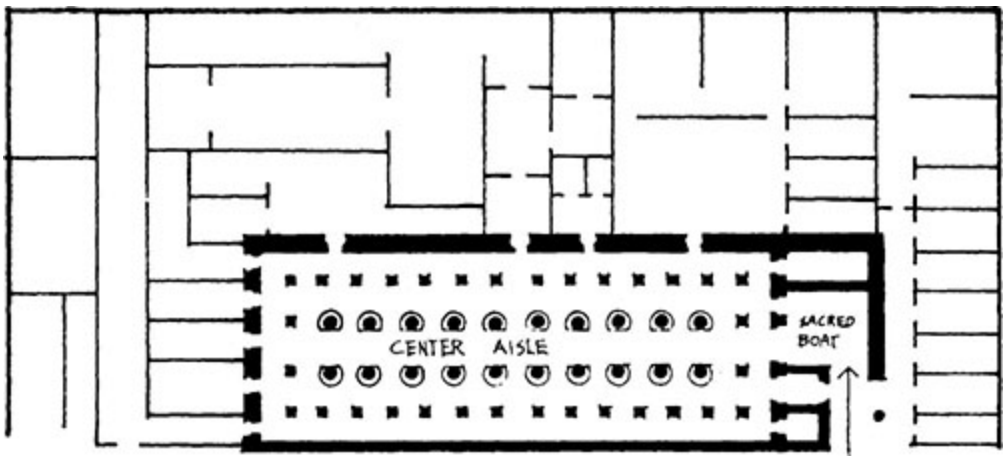
Tectonic features

In the hypostyle hall new spatial and tectonic features begin to emerge. No other building in Egyptian architecture achieved such an imaginative interaction between tectonic elements and spatial differentiation. The hypostyle hall forms the core of the complex (144 ft. wide, 52 ft. deep). It consists of a triple nave accompanied to right and left by two outer galleries. On three sides about forty chambers were organized, some large, some small, some filled with columns. The entire complex has been meticulously described by Vandier (1955, II, pp. 890-901).

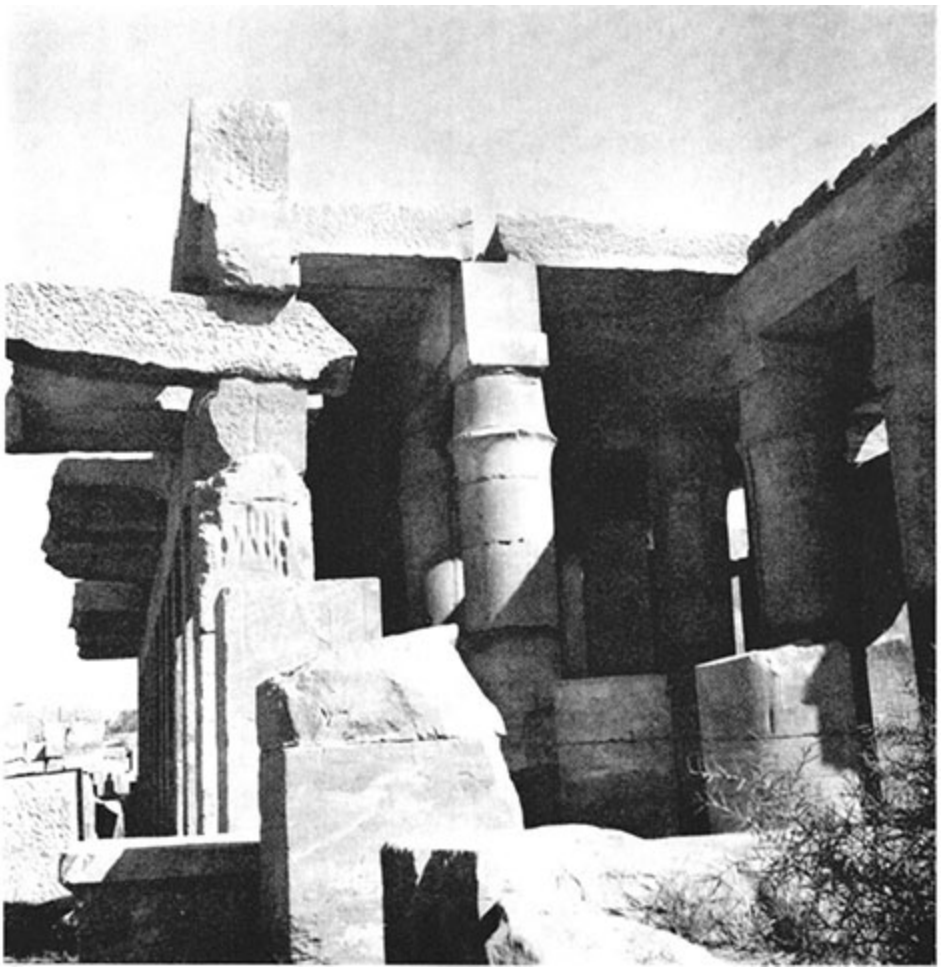
370 The center aisle is slightly wider than the side aisles. It also appears higher, but it is not. In reality all three aisles are the same height. The impression of difference comes about through a subtle interlocking of spatial and tectonic elements. It takes some time to understand the means used to create this ingenious interaction. It cannot be derived from the ground plan and, as far as we know, no elevations or sections of this unique

structure exist. We present merely a **370** rough freehand sketch to facilitate orientation.

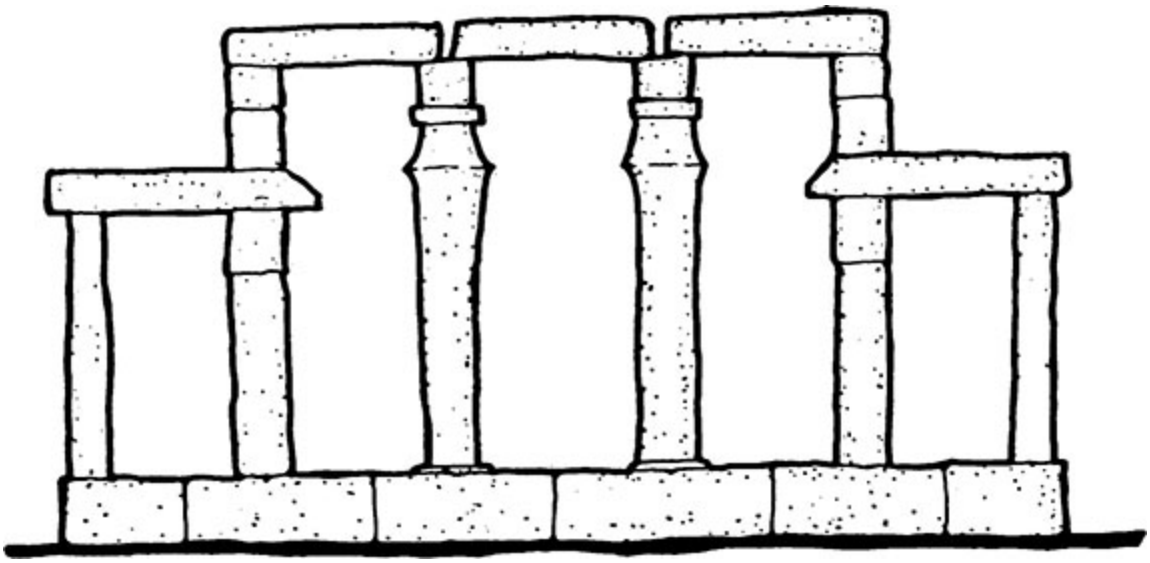
OUTER AISLE, FESTIVAL HALL OF TUTHMOSIS III: *The Akh Menou. The outer wall of this face has fallen*



GROUND PLAN OF FESTIVAL HALL: *Surrounded by chambers except on the west side. Space is left at the entrance (to the right) for turning the sacred barge in procession. The interesting feature of this hall is the structure of the hypostyle, with its three central aisles and two lower side aisles. After Chevrier*



WESTERN AISLE OF FESTIVAL HALL: *The beams which once spanned the side aisle are now cantilevered into space. There were short, square pillars along the side aisle and tall, tapering columns along the central nave*



SECTION THROUGH FESTIVAL HALL: *The height of the three central aisles is identical, but the middle one appears much higher. This difference is achieved with much ingenuity by making the square side pillars only the height of the outer aisles and surmounting them by inwardly protruding roofing beams and narrow light slits. Drawing after the author*

LIGHTING OF FESTIVAL HALL: *Light slits above the protruding beams of the western aisle*

The central aisle looks higher than the flanking ones, though all are covered by the same flat roof. This is effected by several means. The thirty-two square pillars and the walls that bound the side aisles are considerably lower than the twenty tapering central columns. They are surmounted by a continuous architrave. Above this is the decisive element in producing the impression of differing heights: a series of transverse slabs. These serve as sills below a band of narrow horizontal openings. Following an ancient Egyptian habit, the inner ends of **326** these transverse slabs are cut off at an

angle in order to reduce the penetration of direct light, as in Chephren's valley temple about a millennium earlier. The **371** slabs project outward to form the ceiling of the two outer galleries, whose height they determine. The simultaneous protrusion of these slabs on both sides of the vertical supports, into the side aisles as well as into the outer galleries, reveals a spirited architectural ingenuity and a considerable constructive imagination. It is a far cry from the monoliths of Chephren's valley temple, with their grandly simple structure of load and support, to the differentiated construction **260 col** of the Akh Menou, where stone beams have become bearing centers, almost as in reinforced concrete construction. The emergence of a subtle structuring of stone architecture can here be glimpsed. But, like the spatial organization of **Part X** Hatshepsut's stone terraces at Deir el Bahari, it was never developed further. Neither earlier nor later did Egyptian architecture achieve so complete a mastery of tectonic elements of expression as in this hypostyle hall of Tuthmosis III. And it is of modest proportions. This is an architecture based on the smallest changes of dimension. Spirit, not mass!

Tuthmosis was by nature pitiless. He knew how to hate. On the other hand it is a sign of an inner sense of balance that the greatest warrior king of Egypt here held himself within such distinguished limits.

On the cast-west axis of the festival hall, but toward the east, Tuthmosis erected a single obelisk: also a unique occurrence. Its exact placement has recently been rediscovered by Barguet (Vandier, 1955, II, p. 931). It is the tallest known obelisk. The Emperor Constantine brought it to Rome in the fourth century A.D. Today, still solitary, it stands in front of the Lateran palace.

The north-south axis of Karnak

All the buildings so far described were placed immediately in front of and behind the innermost sanctuary of the temple of Karnak, but this east-west axis — the natural orientation for a sanctuary — only acquired its overpowering monumentality in the Nineteenth Dynasty under the Ramessides.

The Tuthmosids had created a monumental axis toward the south. A network of sacred ways already led to various nearby sanctuaries and

overland to the **before 355** temple of Luxor. This southern axis started almost at right angles to the pylon of Tuthmosis I (now Pylon IV). It was marked by a series of monumental signposts: pylons.

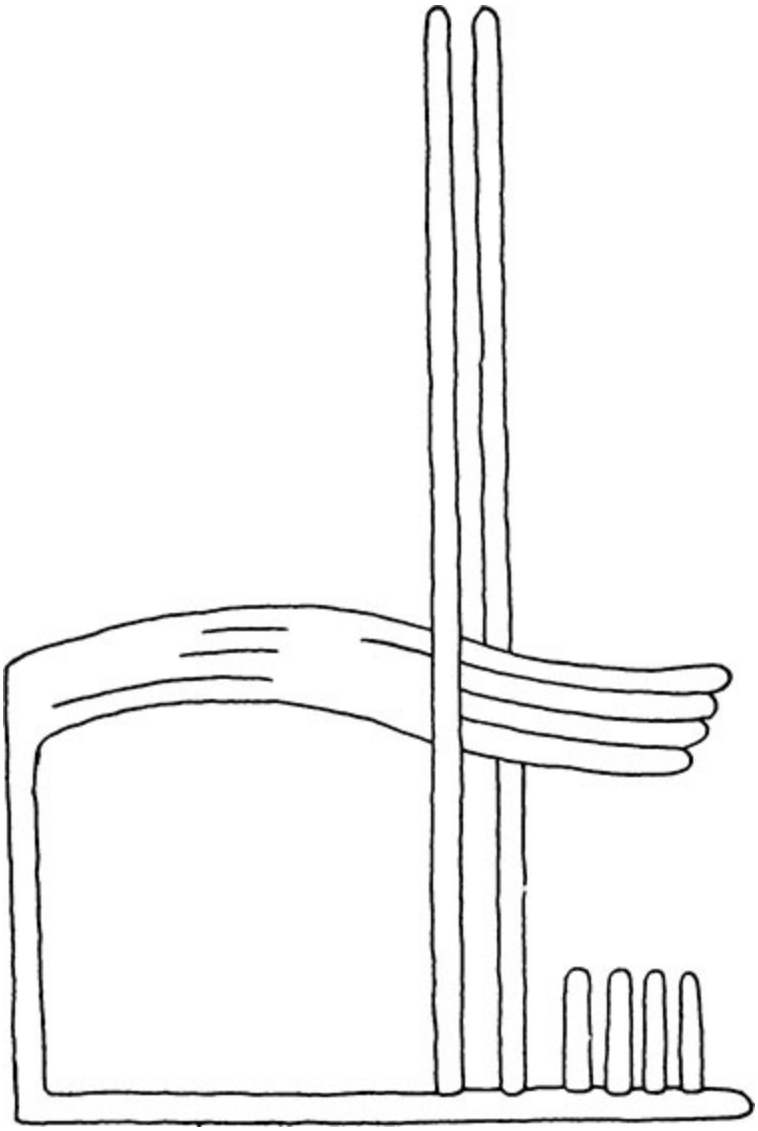
In the time of Hatshepsut the processional way from the north entered inside the precincts of the temple just in front of Pylon IV. A new pylon (now VIII) was built exactly at the point at which the processional way left the temple **376** precincts to the south. Hatshepsut took the main initiative, though whether some start had already been made by Tuthmosis I is not certain. But the generosity with which Pylon VIII is set forward and its plastic relationships recall the spaciousness of the terraces of Deir el Bahari.

PYLONS AS MONUMENTAL BARRIERS

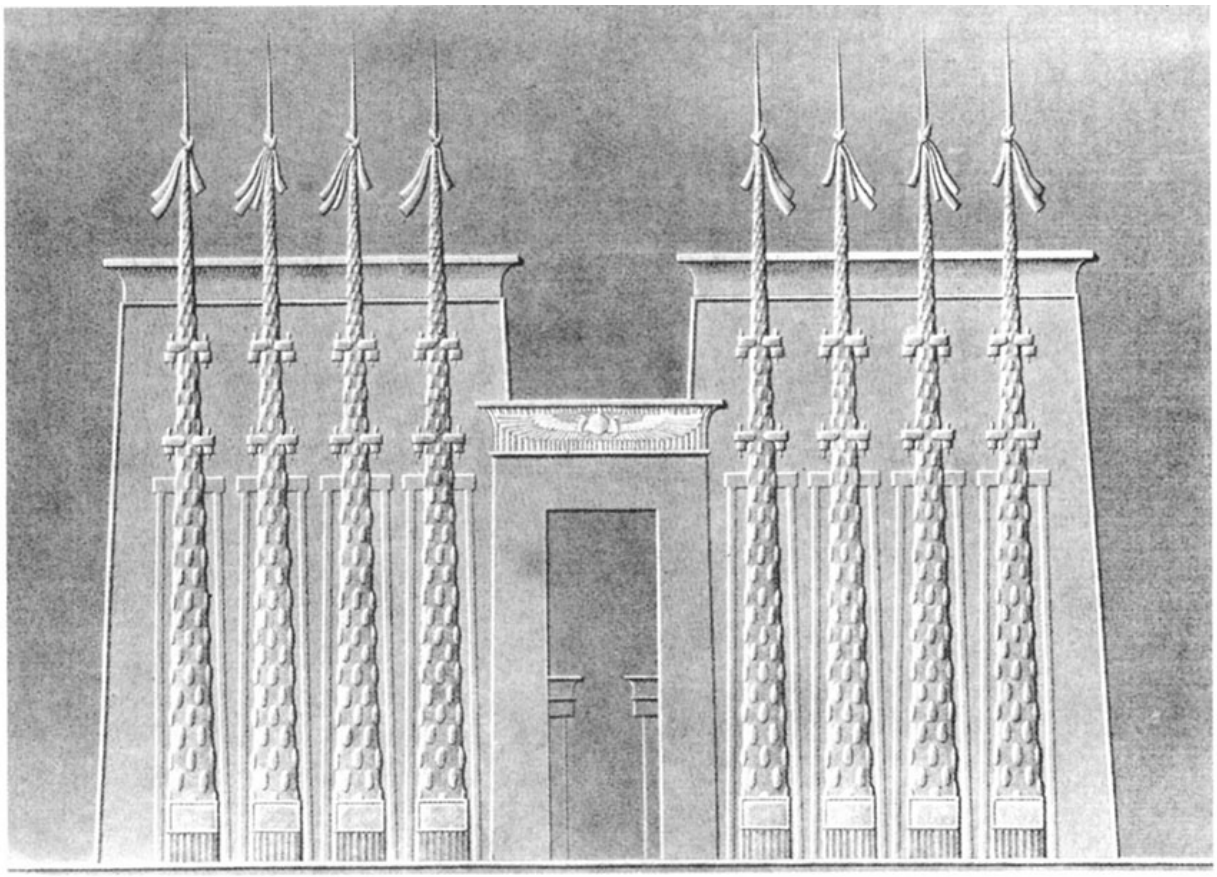
A pylon is composed of high inclined walls and a large entrance to the sacred precincts. Immediately adjacent, to right and left, it is accented by tall flagpoles, obelisks, and colossal statues of the kings. The façades of its gently sloping walls bear sunken reliefs whose delicate but sharply etched outlines stand out even under intense sunlight.

This highly impressive architectural assembly is full of symbolism. The two flanking towers symbolize the mountain ranges that hem in the Nile valley on either side — East and West. They are transmutations of the hieroglyph for **342** Amon-Ra: the sun disk between two mountains, which means "The god is in his horizon."

The cedarwood flagpoles with their pennants were originally "the *ntr*-pole. This was ... a pole that was wrapped around with a band of coloured cloth, tied with a cord halfway up the stem, with the upper part of the band projecting as a flap at top. Dr. Griffith conjectured that it was a fetish, e.g. a bone carefully wound round with cloth. ... As a hieroglyph this wrapped-up pole expresses *ntr,* 'god,' 'divine' . . . gradually it became determinative of divinity" (Newberry, 1924, p. 189).



FIRST DYNASTY SHRINE WITH TWO HIGH POLES: *From the beginning of the Egyptian empire, two astonishingly high poles were placed before the sanctuary. Drawing after Flinders Petrie*



PYLON II OF THE RAMESSIDES: *Tall flagpoles with waving pennants rise high above the pylon. Aquatint from a Twentieth Dynasty relief in the temple of Khonsu. From "Description de l'Égypte"*

Thus the pylon symbolizes the entry to the sacred precinct. Its obelisks with their pyramidions signify the abode of the god; its flagpoles the presence of the god; the colossal statues of the kings, the living sons of god. The pylon is a phalanx of divinity. Here the deity displays himself symbolically to the people. All else is secret.

At the beginning of the New Kingdom, under the Tuthmosids, pylons became the most significant features of the great temples. Though the Greek word *pylōn* means an entrance gate, in reality the pylon functioned as a fortresslike barrier. Here lies its great difference from the Propylaea at Athens. The entrance to the Acropolis, with its receding porticoes, offers the faithful a friendly reception into the sacred enclosure. The pylon commands a halt.

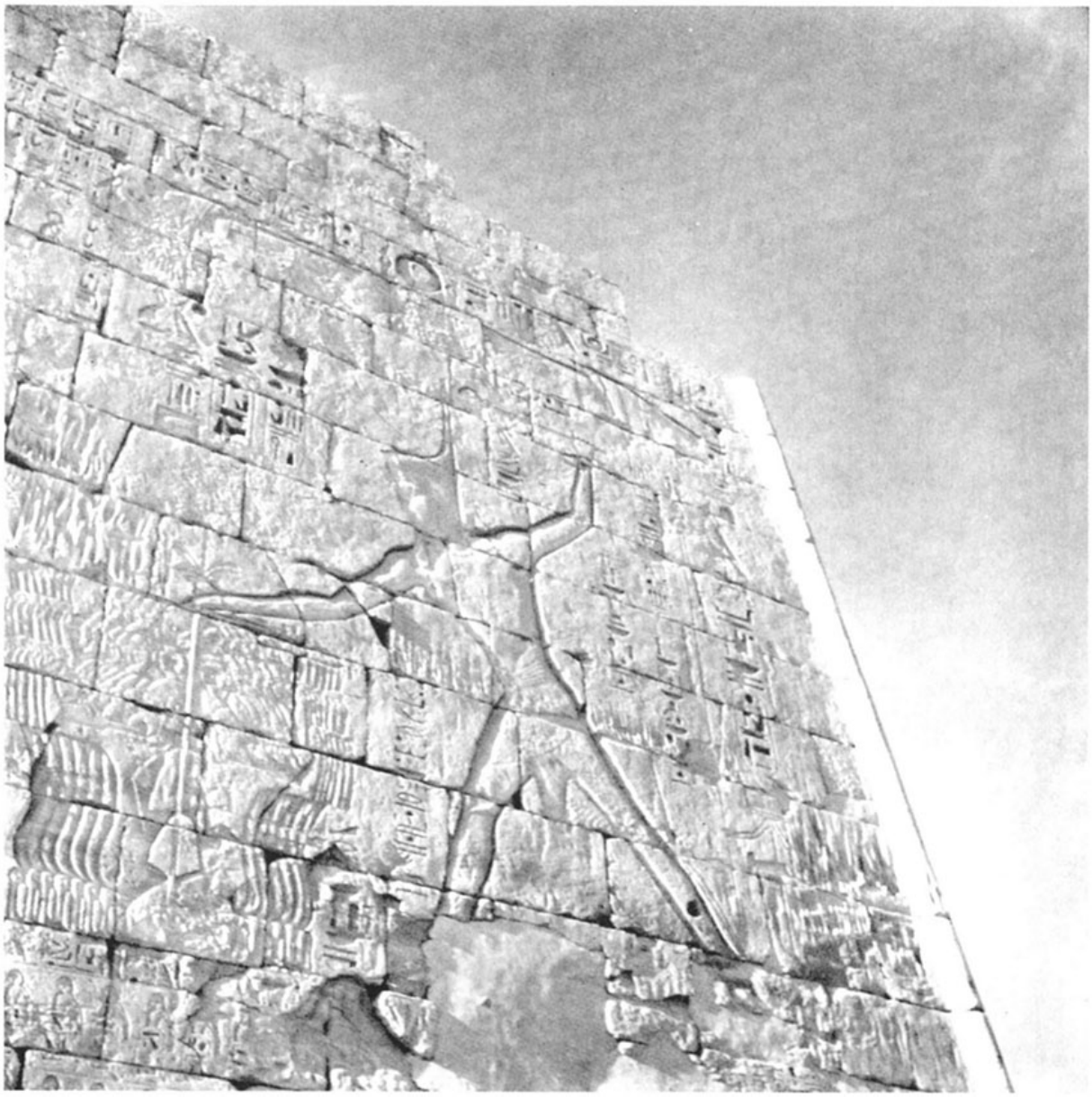
HATSHEPSUT'S PYLON VIII OPENING THE SOUTHERN AXIS: *Earliest of the four pylons along the sacred way which led south to various fertility shrines. It is the best preserved of all*

In a thesis now in preparation, a French Egyptologist attempts to prove that the people were not admitted beyond the entrance gate. An examination of the pylons of Tuthmosis I, Amenhotep III, and Ramesses II shows how the great portal shrinks to a small antechamber which, in comparison with the huge mass of the pylons, is not unlike the entrance to a beehive and was certainly well **382** guarded. This may have been different in the case of Pylon I at Karnak, which was erected by the Ptolemies, but it was not built until near the end of the Greek development.

The pylons are the monumental manifestation of a tradition that goes back to the beginning of Egypt, and perhaps still further — the announcement of an enclosed sanctuary. In the stockades surrounding the court of a reed-hut temple (the sanctuary of Neith) of the First Dynasty, two tall poles bore the triangular emblems of the deity. Another First Dynasty shrine, as drawn by Flinders Petrie, is even more convincing as to the early importance of high poles. On the **374** reliefs of Zoser's "southern tomb" similar poles appear, probably recalling earlier venerated sanctuaries. The

New Kingdom pylon with its tall wooden **375, 380** poles and obelisks forbids further entry to the uninitiated.

PYLON VIII WITH SEATED STATUE OF HATSHEPSUT



PYLON VII WITH RELIEF OF TUTHMOSIS III: *Hatshepsut left a generous space between her Pylon VIII and the sanctuaries of the temple of Amon. Tuthmosis III built his Pylon VII within the large inner court. The gigantic relief of the Pharaoh shows him slaying his relatively diminutive enemies. This kind of iconographic representation was preserved from the First Dynasty Narmer palette*

We have only a fragmentary knowledge of the Middle Kingdom predecessors of the pylon. Of the temple of Sesostris I at Heliopolis, only one obelisk — the earliest known — remains. There are so many gaps in what remains of other temples of this period (Vandier, 1955, II, pp. 595-658) that no definite conclusions can be drawn. The most probable

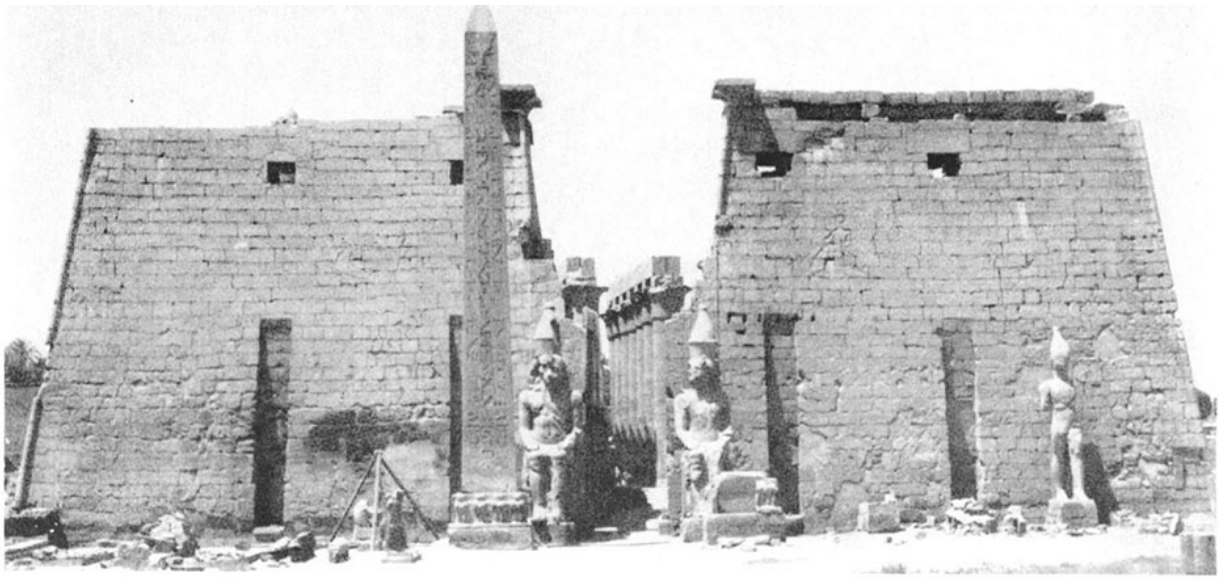
predecessors of its later monumental form are the great gates of the funerary monuments of the Middle Kingdom with their sloping walls.

The tensions felt in the pylon between huge and massive walls, delicate incised reliefs, obelisks, flagstaffs, and colossal statues attached to the wall are full of architectonic excitement. Our present period has again a strong affinity for such dramatic relationships, though it has not yet found the way to master them in a contemporary idiom.

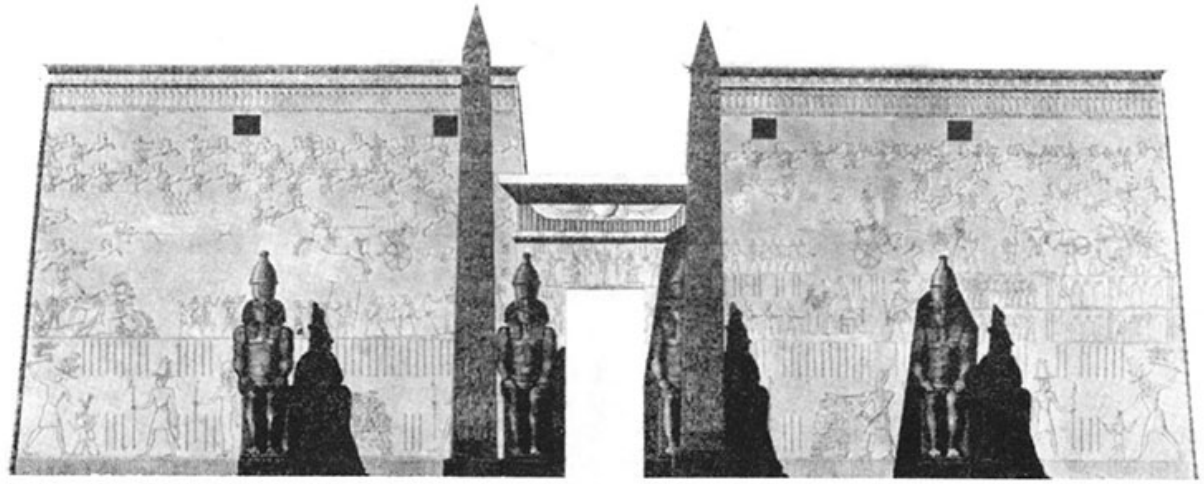
Hatshepsut's Pylon VIII

With her Pylon VIII, Hatshepsut opened up the north-south axis on a grand **376** scale. As in her other buildings, Hatshepsut outwardly followed the established tradition, but inwardly made a number of changes. The form of the pylon is conventional: trapezoidal, with sloping and tapering walls, round fillets at the corners, and a throated cornice molding such as had been customary since Zoser's time. The deeply embedded bases for the tall flagpoles, and the sunken reliefs upon the inner side that show Hatshepsut doing business with the gods, are also traditional. No signs remain of any obelisks.

It is the Tuthmosids who occupy the foreground. Tuthmosis I, Tuthmosis II, Amenhotep I — the forebear of Tuthmosis I — and Hatshepsut herself. This assembly **377** of forefathers before a pylon is unusual. Here, in the religious center of the kingdom, Hatshepsut reiterated upon a most monumental scale — as if through a loud-speaker — what was of the utmost concern to her and what her reliefs at Deir el Bahari display in the most varied manner: the legitimacy of her claim to be Pharaoh. "Even in their present sorry condition the wonderfully harmonious relationships of the statues to the structure remain effective. And the symbolism must have deeply impressed the Egyptian visitor as the sovereigns of the era greeted him at the threshold of the imperial sanctuary" (Bissing, 1949, p. 156).



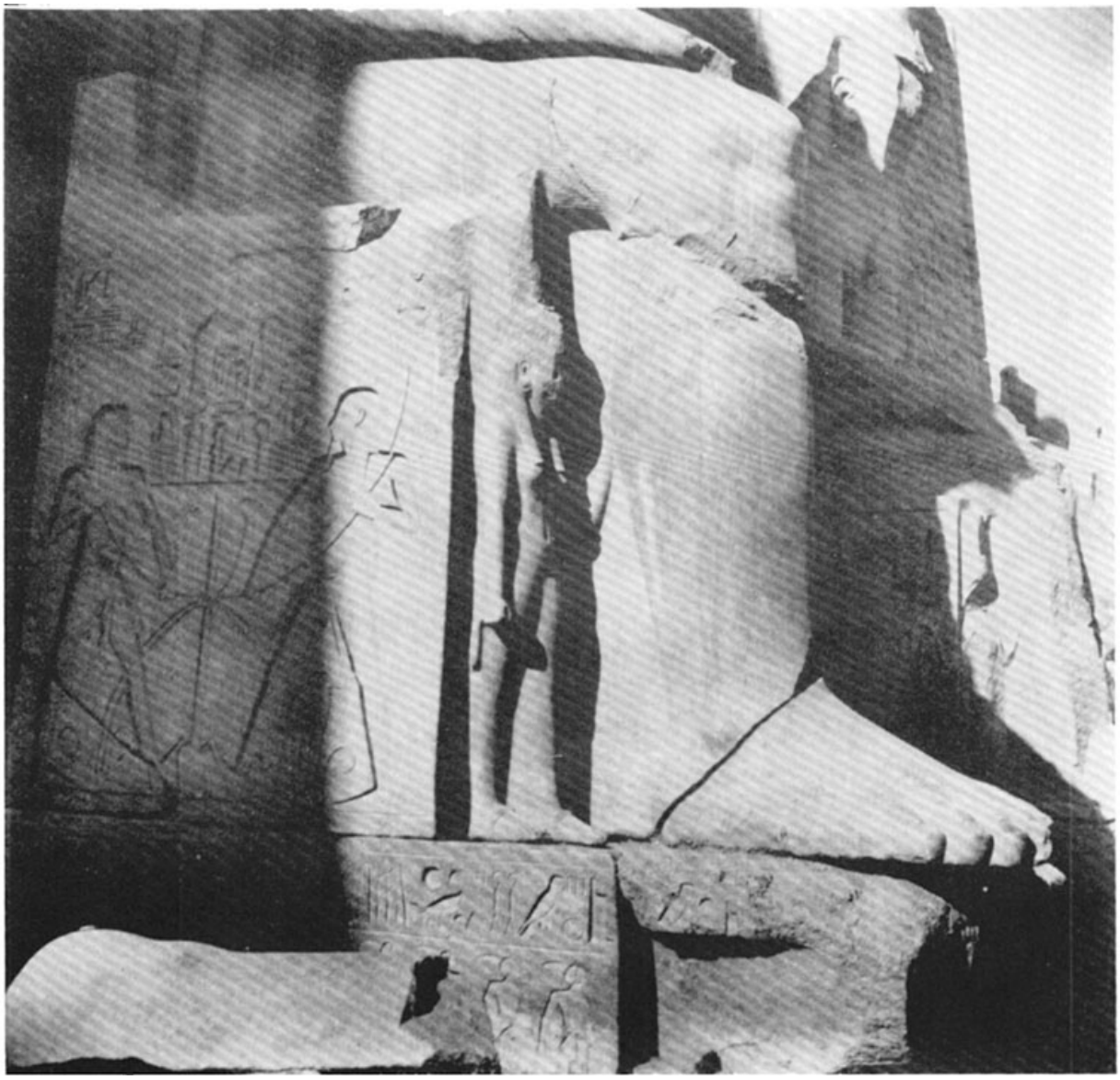
TEMPLE OF LUXOR, PYLON OF RAMESSES II



TEMPLE OF LUXOR, RECONSTRUCTION OF PYLON OF RAMESSES II: *Aquatint, 1812, showing the two tall obelisks which then still stood before the pylon. One now stands in the center of the Place de la Concorde* (*Paris*). *Two of the statues of Ramesses II were standing figures. From "Description de l'Égypte"*

Tuthmosis III usurped Hatshepsut's colossal statue, which is, by chance, the ***377*** best preserved of the four. This statue was formerly supposed to have represented an earlier king, but von Bissing ascertained that the figure was Hatshepsut. The whole pylon expresses an indivisible unity. The scale developed here betrays the hand of a master builder. The boxed-up compression of Tuthmosis I's building, a structure unsurpassed until the rise of Hatshepsut, had come to an end. This Pylon VIII gave an impetus to the

north-south axis. It was placed so far from the complex that Tuthmosis III was able to set up his own Pylon VII in **before 355** the intervening court.



SEATED COLOSSUS OF RAMESSES II: *Detail. Beside the gigantic leg of the monarch stands a miniature figure of his queen. The Egyptians were never afraid of juxtaposing representations in different scales*

THE NEVER-COMPLETED PYLON I: *The major part of this pylon, at the main entrance to the great temple of Amon at Karnak, was constructed under the Ptolemies. Portions of the ramps of rough bricks used for its construction still remain in situ*

The whole conception of Hatshepsut's Pylon VIII, as well as its bold siting, makes it difficult to believe that it could have stemmed from any other hand than Senmut's. It displays the same broad generosity of treatment as the wide terraces of Deir el Bahari. It also brings to mind the novel placement of the row of colos- **429** sal Osiris figures along the front of the uppermost terrace of Hatshepsut's mortuary temple; in Tuthmosis I's generation they had been ranged against interior **366** walls.

The sacred way led from this pylon to the sanctuary of the lioness-headed Mut. Hatshepsut bordered the long processional way to this southernmost sanctuary of Karnak with an impressive avenue of sphinxes — 330 meters behind the **354** enclosure wall erected much later by Horemheb. In Hatshepsut's time the temple of Mut did not exist in its present form, "yet a sanctuary may have stood here even in the Middle Kingdom, if not earlier" (ibid., p. 162). The main builder of the present temple was Amenhotep III. Hundreds of seated granite statues of the ^4 goddess Sekhmet-Mut were placed in the temple courts; many of them are now **71** widely distributed in museums.

The southern part of the temple area is still embraced by a sacred lake in an **before 355** irregular U-like curve, an unusual shape for an Egyptian body of water. The temple of Mut, like most of the sanctuaries in this part of the Karnak complex, is related to fertility. It may perhaps be not too daring to compare the unusual shape of the sacred lake with that of the womb, as it has recently been shown that the headdress or wig of Hathor (also a fertility-goddess) "repeats exactly the *uterus-symbol* of the Babylonian goddess Ninhursag" (Barb, 1953, p. 199).

A repository chapel with a circumambulatory and a temple built by Hatshepsut are dedicated to Amon-Min-Kamutef (the "Bull of his mother") and reached by a short approach branching off at right angles from the sphinx avenue just before the Mut temple. This resting place for the sacred barge interested Borchardt, who attempted to relate it to Hatshepsut's jubilee (1938, pp. 79-83). In 1954, Ricke made an intensive study of the foundations of both temple and repository chapel. On the fragment of a relief he discovered to whom the temple was dedicated. It was "Amon-Ra-Kamutef, he of the towering feathers, who glories in his beauty, i.e., his powers of procreation" (p. 4, fig. 1). This connection of Amon with Min, the god of fertility, established a kind of preliminary setting for the temple of Amenhotep III at Luxor.

The pylons of the southern axis

Within the precincts of the temple of Karnak the southern axis was emphasized by four pylons (now VII-X) which Mariette named the "pylons of the south." They give somewhat the impression of a series of triumphal

arches. Between **before 355** them lie three courts, with small shrines, for the jubilees of the reigns, inserted in their eastern walls. The processional way led through these four pylons and continued more than three hundred yards along the sphinx avenue to the sanctuary of Mut. Other sacred ways branched off to other sanctuaries. Within the great inner court of Pylon VIII, Tuthmosis III erected a new pylon (now VII). Conventional reliefs of the massacre of defeated enemies covered its walls, and though this is the worst preserved of the pylons, they are still visible.

378 A scene of the Pharaoh in heroic dimensions, with his mace crashing down on a group of prisoners representing conquered territories and one hand grasping the hair of a group of enemies, is repeated on the front of each pylon. Iconographically this scene goes back to the beginning of the First Dynasty, to the Narmer palette. It formed the background for a purification ritual performed at the moment of entering the sacred precinct.

On the occasion of his thirtieth anniversary, Tuthmosis III built in the eastern wall a repository chapel with a circumambulatory and an exit to the neighboring sacred lake (Borchardt, 1938, pp. 90-93). Behind is the edifice of Taharqa — not really studied or excavated — its walls covered with reliefs related to the cult of Osiris.

Before the last two pylons (now IX and X) acquired their final form under the Ramessides, Amenhotep II built a remarkable jubilee temple fronted by fourteen pillars. Behind it was a hypostyle hall.

All four of these southern pylons, as well as the buildings, suffered many restorations and usurpations by later rulers.

THE HYPOSTYLE AS PASSAGEWAY

The great hypostyle of Ramesses II

Next to the pyramids, the most spectacular structure in Egyptian history is the great hypostyle at Karnak. It has all the gigantism that marked the age of the **258 col** Ramessides, and of all the structures erected by that mighty builder Ramesses II, it is the most important contribution to the history of architecture. No earlier building can compare with the dimensions here given to a covered space, and no later building even attempted such colossal scale. The area is some 6000 square **386** yards: length 338 feet, width 170 feet. It has often been pointed out that it was large enough to accommodate the entire cathedral of Notre Dame in Paris.

These huge dimensions give rise to several questions: What was the purpose of the hall? What actually happened here? What were the structural solutions to the problems thus posed? Finally, how were these expressed in spatial terms?

The hypostyle continues the main east-west axis and gives it its greatest emphasis. Without it, the axis would not have its plastic monumentality.

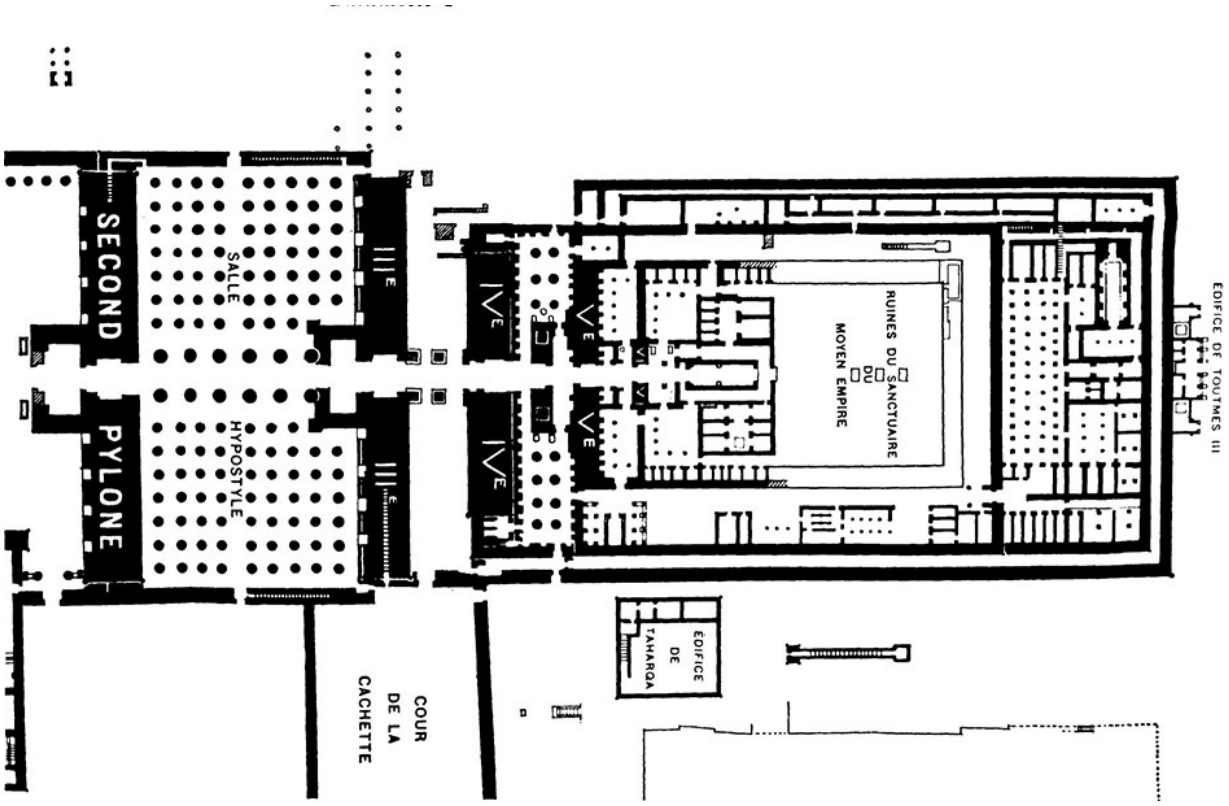
Its eastern wall is formed by the great pylon of Amenhotep III (Pylon III), in whose foundations the fragments of so many other monuments were buried. Its western wall is Pylon II, erected under Ramesses I. To right and left of the once-small entrance vestibule were two colossal statues of Ramesses II. Fragments of one are still standing. A similar vestibule projected from the pylon of Amenhotep III which had guarded access to the temple. This occasioned some irregularities in the ground plan.

Through Pylon II's later enormous doorway (whose height compares with **388** the Arc de Triomphe in Paris), an overpowering amount of light could penetrate into the interior, in marked contrast to the rest of the building and to the intention of the half-dark colonnaded hall. This gigantic opening was first made under the Ptolemies.

The central passage of the hypostyle, seventy-eight feet high, gives a particularly strong emphasis to the east-west axis. This passage is formed

by six columns on either side, whose diameter is the same as that of Trajan's column in Rome (11 ft. 7 in.). This central passage is far wider than those formed by any of the seven colonnades on either side. Its pre-eminence is enhanced by the fact that the interval between it and the lower colonnade on either side is greater than the intervals between any of the latter.

THE GREAT HYPOSTYLE HALL FROM THE SOUTH: *From left to right, remains of Pylon II started by Ramesses I; boundary wall; columns of the lower and higher aisles and openings of the window gratings. To the right some remains of Pylon III, built by Amenhotep III, and, finally, the obelisks of Hatshepsut and of Tuthmosis I*



GROUND PLAN OF GREAT HYPOSTYLE HALL: *338 x 170 feet, with 134 columns ranged in 16 rows. To the left the large colonnaded court built by the rulers Chevrier of the Twentieth Dynasty, to the right the buildings of the Tuthmosids. From*

This east-west processional way between the high columns was the path the king followed on his procession to the temple of Luxor, bearing a censer in his **362** hand, as we see him in reliefs. Carvings on ceiling slabs along the way constantly repeat the protector of the Pharaoh: the goddess Nekhbet, a vulture with outstretched wings.

The term “hypostyle” appears in Diodorus, first century B.C. (Legrain, 1929, p. 159), to denote a hall with a roof borne on columns. In this dense, column-packed hall of Ramesses II the word acquired quite a special meaning. The 122 lower columns, which are six and a half feet in diameter, seem to shatter space, for the intervals between them are smaller than their diameter. The beautiful eye-level photograph by G. E. Kidder Smith, of the hypostyle at Medinet Habu, **389** brings out the fragmentation of space felt by the present-day spectator. At Karnak the dense rows of lower columns are not arranged symmetrically with the **509** high columns, and this makes the space appear even more filled up. This did not happen by chance; it was intentional.

Despite such crowding of the space, the architectural conception of elevation and ground plan is clearly expressed. Although there is a narrow central aisle in the north-south direction, the principle of the building was to employ every means to stress the dominance of the east-west colonnade as a place of passage; thus even in this gigantic hall there are no altars. It is not a gathering place for a congregation of the devout; it is not a resting place; it is simply a most monumentally conceived place of passage. In its half-darkness ritual functions were performed and oracles delivered. Pronouncements of the deity were received here — for instance, the nomination of the Pharaoh's successor in cases of doubt. The most famous such nomination was that of Tuthmosis III, when the sacred barge bearing the image of Amon halted in its journey before the young prince. Though the incident actually occurred in the small hypostyle of Tuthmosis I, it indicates the purpose of such halls.

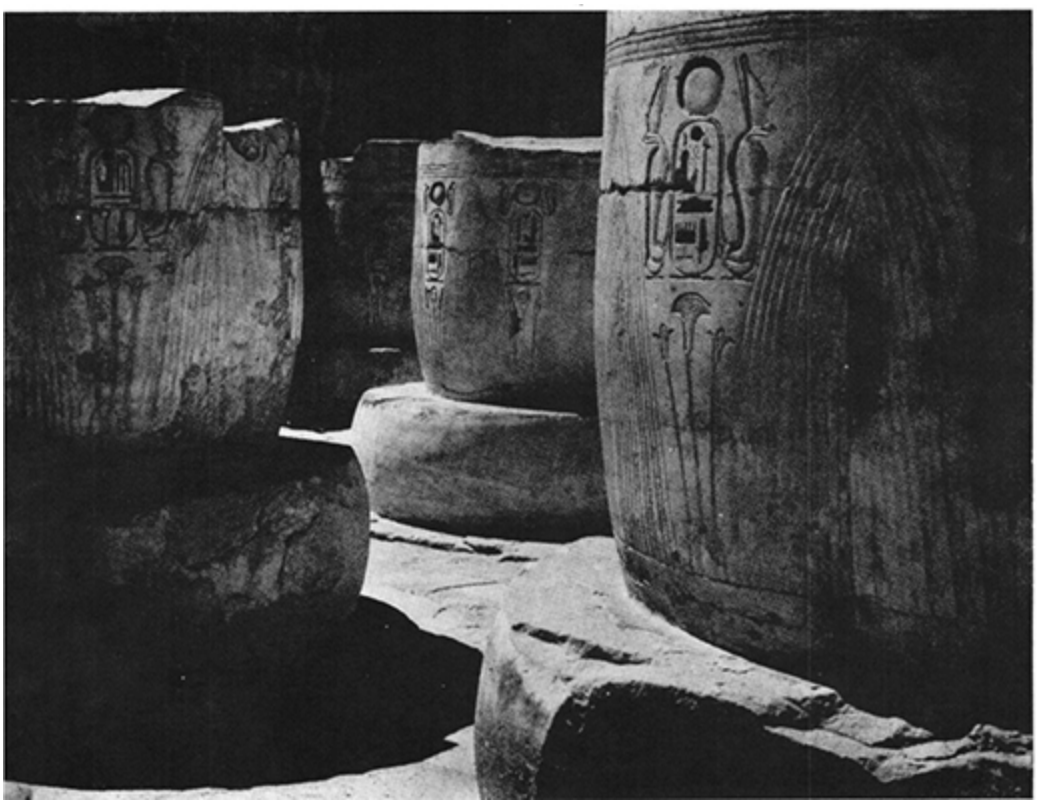
The hypostyle at Luxor

The basic conception of the hypostyle as a place of passage and ritual had crystallized even more definitely in the earlier hypostyle of the temple of Amon at **393** Luxor, which was the first example of the final form of the great temples of the New Kingdom.

The peaceful reign of Amenhotep III enabled the major part of the temple to be completed at one time. We have no reliable information about the layout of earlier Middle Kingdom temples on this site. Later, Ramesses II added a colonnaded court and a pylon at a slight angle to the temple's north-south axis, which **392** did not improve the whole.

ENTRANCE TO GREAT HYPOSTYLE HALL: *Through Pylon II, begun by Ramesses I. Before it stands one of the statues of Ramesses II and the low walls of the lodges which guarded the entrance. Within is the central nave. From Jéquier*

The architectural rhythm at Luxor flows unusually steadily. The architecture itself is powerful and yet, for Egypt, very delicate, like the outlines of the funerary reliefs of high royal officials on the opposite bank of the Nile. The dewy freshness of forms noticeable in Hatshepsut's work was repeated in this masterpiece of the great-grandson of Tuthmosis III.



BASES OF PAPYRUS-BUD COLUMNS AT MEDINET HABU: *These relief-covered columns in a side aisle of the hypostyle are built up from stone drums, like those of Zoser's mortuary complex (see fig. 161). But now the drums have grown to colossal dimensions (diameter up to* 4 *m.). The intervals between them are so narrow that the columns sometimes seem to form a solid mass*

398 The innermost sanctuary with its side chapels can only be entered through one narrow door. It is purposefully secluded, like the offering altar of the pyramid kings. In front of the door is a magnificent colonnaded vestibule, its long side **394** opening onto a large interior court. One can scarcely imagine a more impressive entrance to a sanctuary than this open-sided hall with its four colonnades of eight papyrus-bundle columns each. These columns are so slender that their massing is not at all oppressive. They are more akin to the papyrus-bundle columns of the Fifth Dynasty funerary temple of Sahura than to the colossal columns of the Karnak hypostyle, which was built only fifty years later. It is hard to understand why this open-sided hypostyle did not usher in a new tradition.

395 The spacious interior court, surrounded by a double-columned portico, then **392** closes down dramatically to a narrow hypostyle consisting of a central passage with seven columns, fifty-two feet high, on either side. This hypostyle is conceived as a narrow, tubular passage. Its total width is

only sixty feet. The image of Amon was borne between these colonnades on its way from Karnak to Luxor at the "Beautiful festival of Opet."

Chevrier, who did so much for the investigation and preservation of the hypostyle at Karnak, believed, according to Vandier, that the double row of columns of the central aisle of Ramesses II's hypostyle at Karnak actually goes back to Amenhotep III and was built at the same time as the Luxor hypostyle (1955, II, p. 912), and that it also originally had seven columns on either side. Indeed, Chevrier claimed to have found remnants of the last pair of columns beneath the **386** Ramesside Pylon II. This view has not been generally accepted (ibid., p. 924), but the suggestion is extremely interesting, for it lends emphasis to the original conception of the hypostyle as a place of passage, a form still preserved in the Ramesses II hypostyle at Karnak, although at first sight one is confused by the manifold multiplication of the columns on either side.

THE DIMMING OF LIGHT

One of the main differences between the huge Ramesses II hypostyle at Karnak and an early Christian basilica lies in the handling of light.

The Egyptians loved half-darkness, not only in their temples but also in their houses. They liked to place their windows as high up as possible, as in a well-known funerary model of a house of Predynastic times.

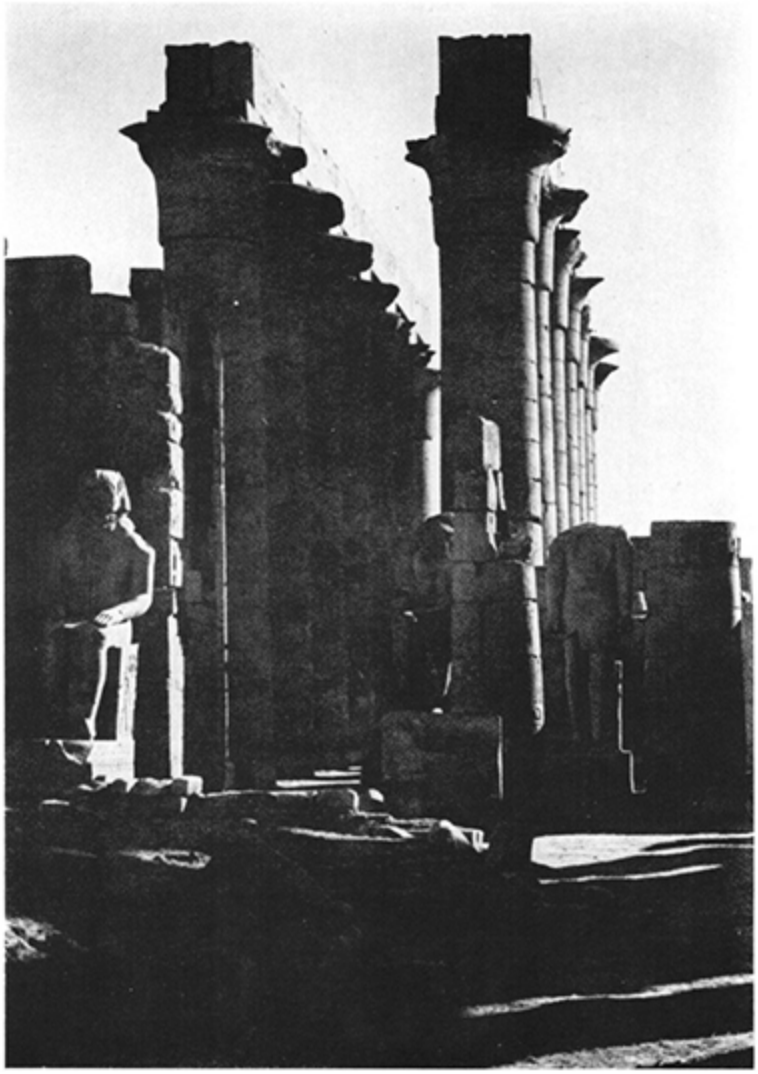
We have more precise information about their way of living in the New Kingdom. In one of the houses at Tell el Amarna, "the decoration of the North Hall was concentrated on the upper part of the walls, where at intervals there were small grille windows in the outside walls" (Lloyd, 1933, p. 5).

There are some scanty remains of the palace of Amenhotep III, from the previous generation, at Malkata, Thebes. Smith gives a vivid description of the palace of the builder of the temple at Luxor (1958, pp. 159-72). "The private apartments of the king consisted of a long, columned hall with a throne room, at the back of which opened a bath and an antechamber to the king's bedroom. On each side of the hall there were four suites of rooms for the chief ladies of the harem" (p. 168). In the columned throne room, the windows with their stone grilles and narrow light slits were again placed near the ceiling.

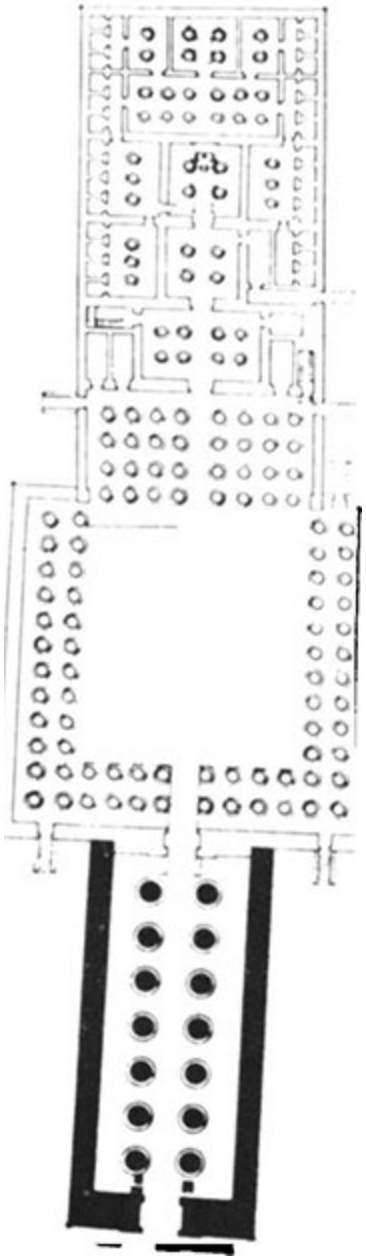
The same manner of lighting, though in huge dimensions, was used in the Ramesside hypostyle at Karnak, which has light-slits similar to those used by **259 col** Tuthmosis III in his festival hall, though enormously larger. Eight openings **260 col** stretch the whole length of the difference in height between the lower columns and the architrave supporting the ceiling of the center passageway. These clerestory windows would have made it possible to admit a flood of light; instead, they were filled with the typical Egyptian perforated stone grilles. This construction has often been compared with the Christian basilica. Yet in these latter, light was permitted to enter unhindered into the hall. At Karnak, the window grilles acted like heavy curtains.

The desire for half-darkness is even more evident in the light coming from the seventy-eight-foot-high ceiling at Karnak. Small openings (9 x 7

in.) were pierced in the heavy (2 ft. 8 in. thick) ceiling slabs, so that the light entered as though through a keyhole. “Thus the light could only enter in narrow rays **259 col** through these little openings” (Legrain, 1929, p. 179). Color plates show one of the windows without its perforated-stone screen and also one of the pierced, once blue-painted ceiling slabs.



HYPOSTYLE HALL, TEMPLE OF LUXOR: *View of the long hypostyle hall of Amenhotep III, originally planned to have three aisles of columns, but hastily finished, after the death of Amenhotep III, by his grandson Tut-ankh-amon with a single aisle bordered by seven papyrus-bundle columns*



GROUND PLAN OF TEMPLE OF LUXOR, AMENHOTEP III *(1400-1362* B.C.): L. *621 feet. The whole complex presents a unified plan, from the narrow, elongated hypostyle, across the double-colonnaded inner court, to the sanctuaries shielded by an open-fronted hypostyle with four rows of eight columns each. The main sanctuary of Amon with its many side chambers is at the extreme north end of the temple. From Schwaller de Lubicz*

TEMPLE OF LUXOR: *View of the hypostyle hall from the inner court*

TEMPLE OF LUXOR, INNER COURT OF AMENHOTEP III: *144 x 168 feet, with excellently preserved papyrus-bundle columns of granite*

TEMPLE OF LUXOR: *The hypostyle hall, with the pylon of Ramesses II in the background*

RITUAL AND WANDERING

The all-permeating idea of wandering is most clearly expressed by the great reliefs of ritual processions within the hypostyle halls: Luxor, Amenhotep III, fourteenth century B.C.; Karnak, Ramesses II, thirteenth century B.C.; Medinet Habu (west of Thebes), Ramesses III, early twelfth century B.C.

Many sacrifices were offered to the god on his journey. At the same time he performed important acts of state by way of oracles, such as the selection of Tuthmosis III as Pharaoh. "When the god was brought out . . . borne in a **363** barge on the shoulders of the priests, petitions or candidates to different posts were presented to him. The god accepted and rejected. It was probably by moving toward the petitioner or by retreating from him that the god indicated his will" (Piankoff, 1957, pp. 18-19).

The huge reliefs on the walls of these royal temples reveal the great importance attached to ritual ceremonies performed during the wandering of the god. They depict practically every step and every action of the Pharaoh as he, the son and representative of the god, accompanied the sacred barge which contained the god's image hidden within its naos.

It is to these reliefs that we owe most of our insight into the ritual: the route by land and water from one sanctuary to another, the location of the various processional stations, and the sacrifices performed. The sacrificial ceremonies were of the utmost importance. But this was not all: "Ancient writers have told us of kings and priests wearing animal masks during religious ceremonies. The low **362** relief of Ramesses II on the south wall of the hypostyle is the best illustration of these writings" (Legrain, 1916, p. 41). In this relief Ramesses II is depicted pacing backward while facing the sacred barge. In his left hand he holds a triple incense burner and with his right he throws grains of incense onto the ritual instrument. The trajectory of the grains is indicated by a curve of dots.

The hawk-headed priests "who carry the barge play the part of members of the great or little Paout" (ibid.); in ranks of five, pacing backward and forward, they form "a council to whom the decisions of Amon are communicated" (p. 42).

The columns of the hypostyle are densely packed, and the space between them and the wall is so narrow that the camera cannot take the large reliefs in one shot. In the large and unwieldy volumes of *Description de l'Égypte,* first published by order of Napoleon I in the early nineteenth century, the draftsman depicted ***362*** the entire scenes. On one of them the priests do not wear animal heads. Their heads are shaven. In spite of some inaccuracies, the nature of the procession is well expressed: the wooden carrying-poles on the priests' shoulders bear the sacred barge. Upon it may be seen the shrine of the god, the divine feathers, and, at bow and stern rams' heads, the symbol of Amon.

Along the walls of the hypostyle of the Luxor temple, the "Beautiful festival of Opet" is represented. This has been described in detail by W. Wolf (1931). The various stages of Amon's progress from his cella at Karnak to that at Luxor and back are shown in minute detail along a 150-foot band: the king's sacrifice before the barges in the temple of Amon at Karnak; the barges being carried from the Karnak temple to the Nile on the shoulders of the priests; the journey of the barges on the Nile to Luxor, with an accompanying procession on land; the procession of the barges from the landing stage to the temple of Amon at Luxor; the barges set up in the temple of Luxor and the sacrificial offerings; the return journey; finally, the king's act of sacrifice before the barges in the temple of Amon at Karnak (p. 38).

The date of these reliefs is not definitely established. They resemble the Amarna style of Akhenaten (Amenhotep IV) and are ascribed to Tut-ankhamon (pp. 1-3).

The "Beautiful festival of Opet," which consisted mainly of this processional wandering and the sacrifices connected with it, was fundamentally a fertility rite. This explains the fusion that made Amon sometimes almost indistinguishable from the fertility-god Min, as the latter is depicted in ithyphallic form standing before Alexander the Great in the temple at Luxor. What really happened at this "Beautiful festival of Opet," and the actions connected with what is represented in the reliefs, cannot be fully understood.

Amon, "the invisible one," journeyed in his magnificent barge from Karnak **362** to visit his "southern harem" at the temple of Luxor. In Thebes the ruling deities were a triad of Amon, his consort Mut, and his son Khonsu. Luxor was regarded as the residence of his other consort,

Amaunet. But he traveled in company with Mut and Khonsu, who rode in two other barges for which two shrines were prepared at Luxor with direct access to the great vestibule with its quadruple colonnades of slender papyrus-bundle columns.

"Amon had also a number of human concubines headed by the Chief of the Concubines who generally seems to have been the wife of the High Priest, or else his sister or daughter. They probably had their residence in Luxor, the Southern Harem of Amon. It is quite possible that these concubines were no other than the musician-priestesses, the Chantresses of Amon" (Piankoff, 1957, p. 18).

TEMPLE OE LUXOR, INNERMOST SANCTUARY OF AMON: *Here the cult statue of Amon rested after its journey from Karnak on the occasion of the " Beautiful festival of Opet." A statue of the god was at one time placed upon the wall behind the altar*

Possibly the Egyptians, with their remarkable understanding of symbolism, did not take these abstruse ideas too literally. In a wider sense, the latter originate in the vagueness and polymorphism which for the Egyptians was bound up with the notion of deity.

Ritual processions in Egypt, Mesopotamia, and Greece

Mesopotamian temples have only been described in their earliest stages, in connection with the first beginnings of architecture. Their late stages, in Babylon, Assyria, and again Babylon, are of less significance.

However, there are similarities in the religious structure of Egypt and Mesopotamia that demand some passing reference.

Mesopotamia developed the earliest codes of law. These were inscribed with precisely defined judicial terms upon steles and clay tablets.

However, there are no sacred writings in Egypt or Mesopotamia — or, incidentally in Greece — out of which religious beliefs clearly developed. None of these peoples possessed a dogma with legal powers. All were concerned with establishing direct contact with the deity. But this contact was confined to the privileged few and consequently — as we have shown — led to the separation of the mass of the faithful from the presence of the deity. Only when the statue of the deity wandered from one temple to another could the people receive a glimpse of the naos in which the sacred statue was enclosed.

In Egypt the sacred ways led from the imperial temple of Karnak, stopping **before 355** at various sanctuaries, to the temple of Luxor and across the Nile to the necropolis of Thebes, where Hatshepsut had dedicated her mortuary temple to the god Amon. The Karnak statue of the deity wandered up to the highest terrace of this mortuary temple, into his chapel hewn deep into the rock face.

The Mesopotamian sacred wanderings were just as thoroughly worked out, though differently expressed. The monumental stairways of the ziggurats of around 2000 B.C. were used for the processions of priests which paraded magnificently up and down the three arms of the stairway.

The most grandiose processional way was created near the end of Mesopotamia's existence, in the sixth century B.C. During his reign of more than forty years King Nebuchadnezzar built a processional route in Babylon for the god Marduk, more splendid than any before or since. It formed the background for the greatest annual event, the New Year festival, which celebrated the rebirth of nature: a fertility ritual in which the king played an important role. Just as in the Egyptian "Beautiful festival of Opet," when the statue of Amon wandered to the temple of Luxor in a procession headed by the Pharaoh, the Babylonian statue of the deity wandered in its splendidly decorated chariot and ritual boat from the Tower of Babel (Etemenanki) and the state temple of Marduk (Esagila) along a mile-long

avenue to another temple (Akitu). The mighty procession was led in Thebes by the Pharaoh, in Babylon by the king. The purpose of the two festivals was also similar: the fulfillment of fertility rites.

The separation of the faithful masses from the godhead occurred in both countries. In Mesopotamia the same space never accommodated the abode of the deity and the populace. In Egypt the separation was even more radical.

Even Greece did not break with the ancient ritual meaning of the sacred wandering of the god and the exclusion of the public from the temple. There, no divine statues wandered from temple to temple. The wandering was done by the people. In the magnificent three-dimensionality of the Delphian landscape, nature was far more closely incorporated into the procession as it moved from the earliest sanctuaries to the sacred Castalian spring and up the hillside to the temple of Apollo.

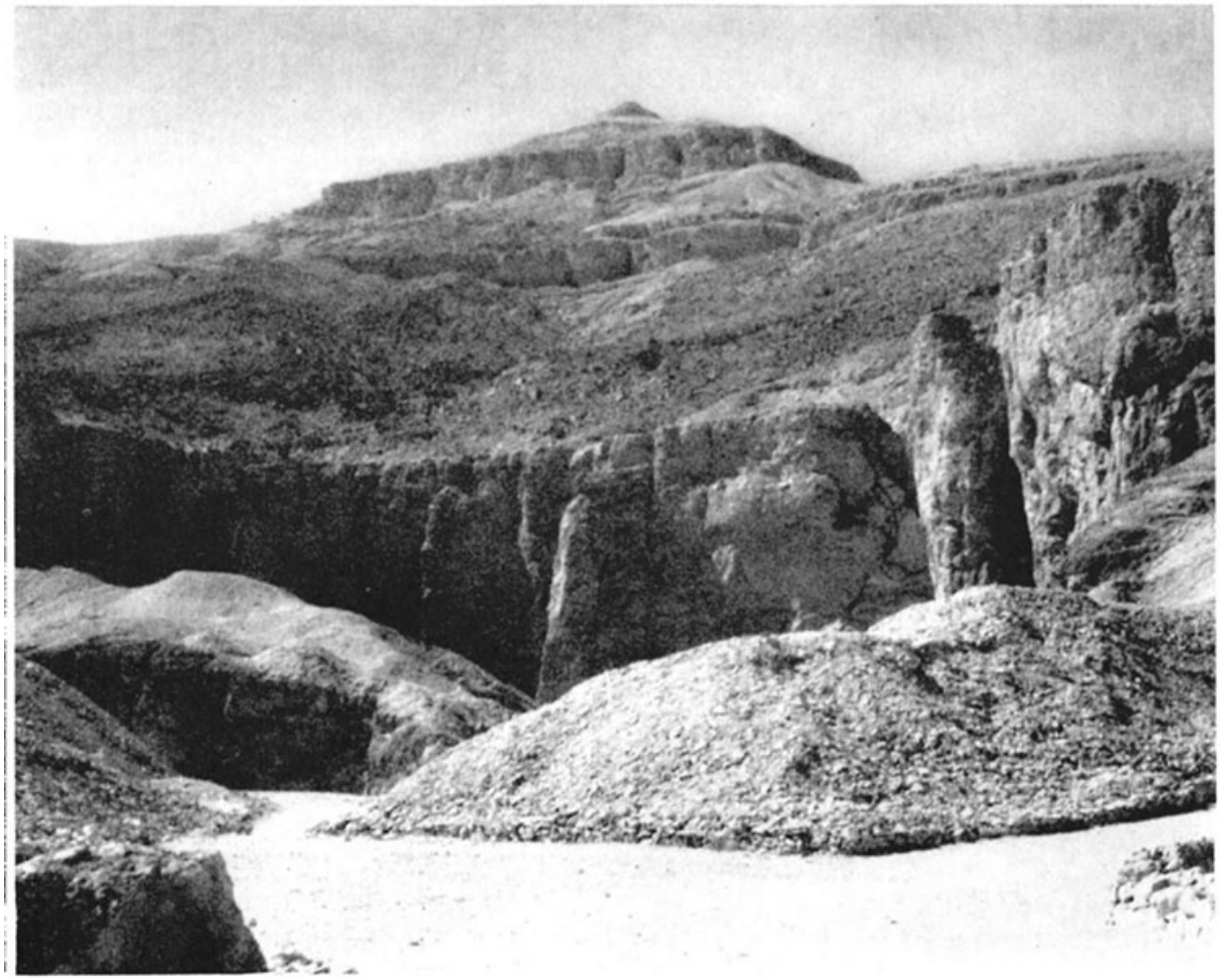
In the urban setting of Athens the Great Panathenaean festival was celebrated every four years; it fell in August and was probably united with a harvest festival. The processional route of this greatest festival of the Athenians was filled with ritual significance. It started from the Dipylon gate of the city and wended its way along the Hermes alley and diagonally across the Agora, passing several sanctuaries before arriving at the Acropolis. The procession, bearing new raiment for the statue of Athena, was led by the chief councilor of the city and accompanied by other members of the council, priests, and horsemen. Its importance is brought out by the dominant position its reliefs occupy on the frieze around the Parthenon. In contrast to Egypt, the Parthenon statue of the goddess Athena had grown to gigantic dimensions. During the festival the great temple door was thrown wide open and the goddess made visible to all. But the people, even here, remained outside the sanctuary.

That the people might wander around the temple but never enter within it is common to Mesopotamia, Egypt, and Greece. This condition is one of the reasons why, throughout the three archaic civilizations, the relations of volumes in space remains a hallmark of the first architectural space conception.

PART X HATSHEPSUT AND THE COSMIC INNER COURT

The terraced temple of Queen Hatshepsut (1490-?1469 B.C.) was constructed in the rock amphitheater of Deir el Bahari, on the opposite bank of the Nile from the temple of Karnak. This radiant climax to a sequence of rock-tombs achieves a rare unity of architecture and sculpture, and a new freedom in the articulation of space that was to remain unsurpassed in the Egyptian development.

The mortuary temple of Queen Hatshepsut was not a tomb. Her father, Tuthmosis I, had broken the ancient custom that required every Pharaoh to be buried beneath a pyramid, or at least to conserve the triadic sequence of valley temple, causeway, and mortuary temple, Tuthmosis I chose to place his own funerary monument in a desert valley, filled with boulders, on the other side of the mountain from Deir el Bahari: the Valley of the Kings. The mountain that **below** forms its background tapers to a pyramid. Here the successive Pharaohs of the New Kingdom continued to be buried until the Twentieth Dynasty, in chambers tunneled ever more deeply into the mountainside. These tombs were sometimes so cunningly concealed that, as when Howard Carter discovered the tomb of Tut-ankh-amon, all the treasures were still undisturbed. Carter and Lord Carnarvon also discovered the tomb of Hatshepsut in which she had also placed a new sarcophagus for her father's coffin. This tomb was found plundered of all else.



THE VALLEY OF THE KINGS: *This concealed rock gorge, surmounted by a pyramidlike peak, became the burial place for rulers of the New Kingdom*

ROCK-TOMBS SINCE THE OLD KINGDOM

The mortuary temple of Queen Hatshepsut marked the end of a development of the rock-tomb that had been in process for almost a thousand years. The basic type was the rock-tombs favored by the nomarchs, provincial governors of Upper Egypt from the Old Kingdom to the Twelfth Dynasty.

At first the nomarchs were simply officials who governed the provinces as servants of the king. With the weakening of centralized power and an occasional waning of the magic aura that surrounded the Pharaoh, they became feudal lords of increasing independence; they left their rock-cut tombs as proud witnesses of their high position.

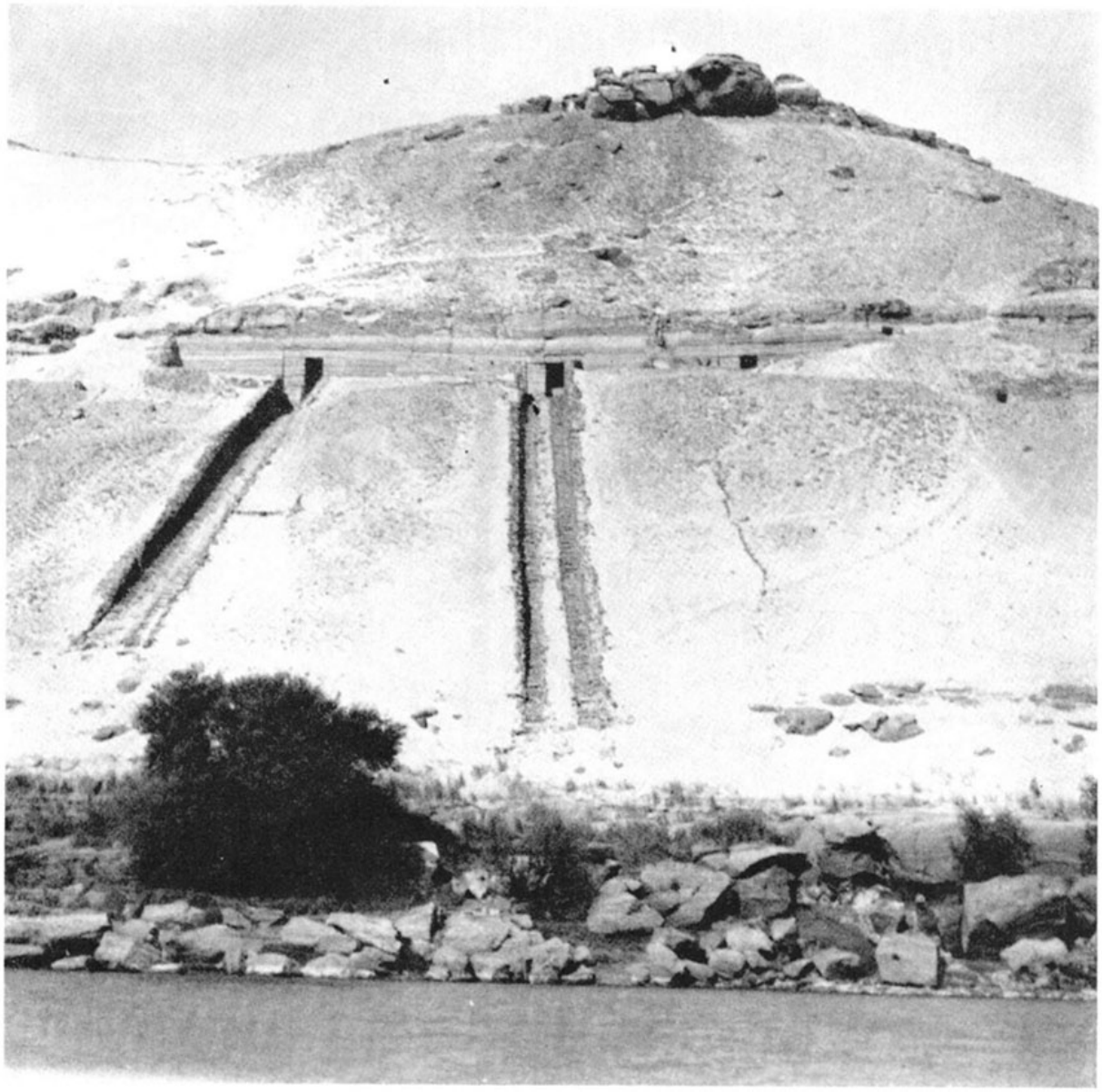
These nomarchs' tombs began to be built in the Fourth Dynasty. A governor of the fourteenth province, named Khenouke, acquired from King Mycerinus, sometime before 2473 B.C., “authorization to be buried in the district in which he was born" (Vandier, 1954, II, p. 295): in other words, far away from Memphis and the pyramids within whose shadow and under whose protection all mastabas of the nobles had stood until then. This marked the beginning of independence. Toward the end of the Old Kingdom, both emancipation and the destruction of the central power proceeded rapidly.

None of the royal tombs between the Sixth and Eleventh Dynasties shows signs of new architectural forms developed under the influence of the cult of the dead. It was the nomarchs and not the kings who created the new rock-cut type. When Neb-hepet-ra Mentuhotep (2061-2010 B.C.), founder of the Middle Kingdom, built his famous funerary temple in the cliff amphitheater of Deir el **410** Bahari, he was, in principle, following the line of development established by the nomarchs.

The structural form of the rock-tomb can only be comprehended when it is related to the physical structure of Upper Egypt. There are no desert plateaus like those at Giza or Saqqara in Lower Egypt, where the table-shaped mastabas of the nobles could easily be sunk into the ground. Any buildings in the valley bottom of Upper Egypt would risk destruction by the

Nile floods, and on both sides the narrow strip was closely bordered by towering cliffs.

The physical structure of this valley was exploited to the full for ritual purposes. The rock-cut tombs of the nobles, hewn halfway up the steep cliff face, **404** show how conscious these provincial governors were of the power they wielded. In a compressed form, the tombs followed the royal sequence: valley temple, causeway, mortuary temple, and tomb. The forms themselves were simplified and, in the case of the funerary temple and tomb, they became different in kind, for these were hewn directly into the rock face.



ROCK-TOMBS OF SIXTH DYNASTY NOMARCHS: *View from the Nile. To the left, tomb of the governor Sabeni; to the right, that of his son Mekhou. Causeways lead up to their tombs from the river bank. Aswan*

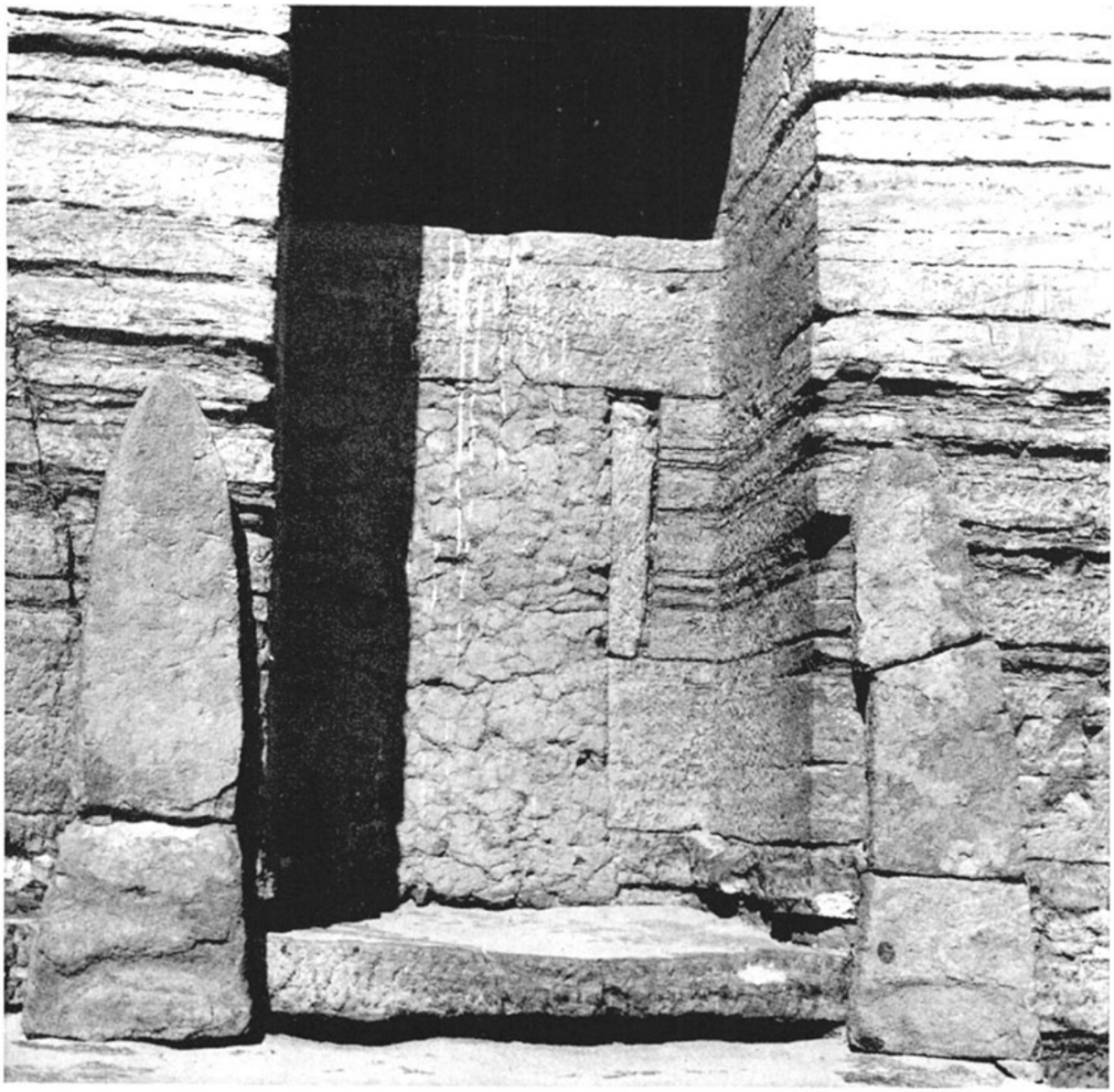
Between the Sixth and Twelfth Dynasties, two stages in the spatial organization of these rock-tombs can be recognized: an early one in which the rectangular chambers were cut parallel to the walls of the cliff, and a later one when they penetrated deeply into the rock. In other words, the development moved from transversely cut chambers *(Querraum)* at the end of the Old Kingdom to the perpendicularly cut chambers (*Langraum)* of the Middle Kingdom.

SABENI'S TOMB, CAUSEWAY: *Looking across the Nile from the tomb entrance, down the causeway bordered with steps*

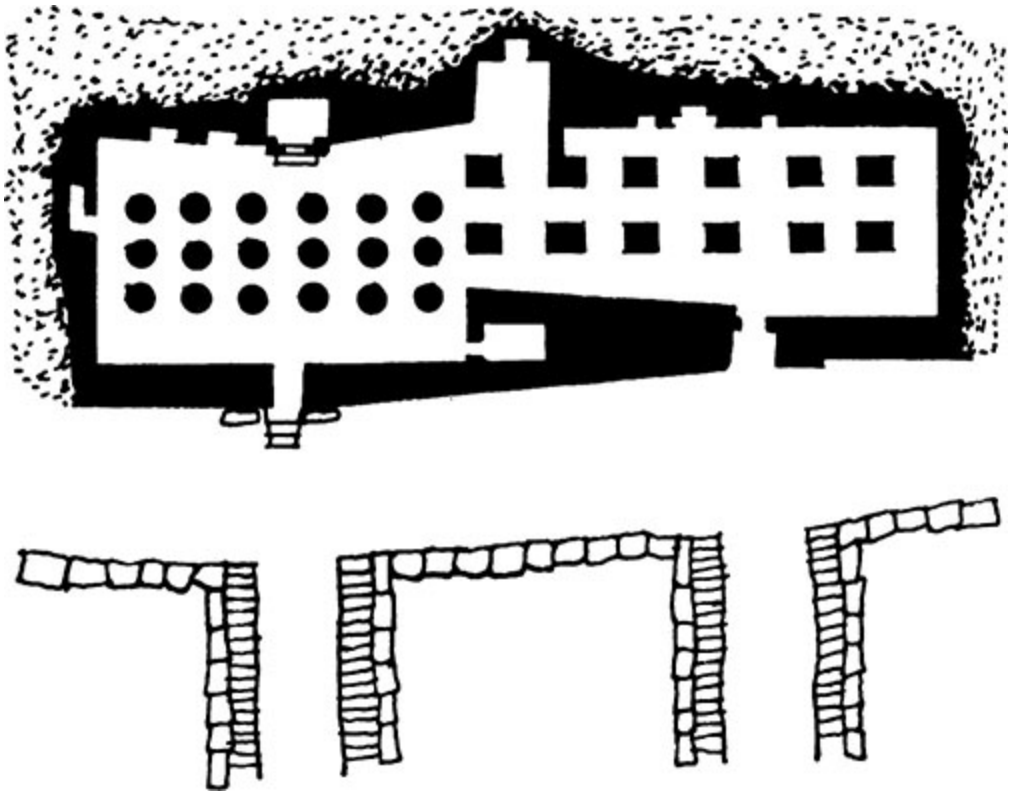
Early stage: nomarch tombs of Aswan, Sixth Dynasty

The finest expressions of the early stage, in which the chambers ran parallel to the face of the cliff, are the rock-tombs of two governors of Elephantine (Aswan). These two chambers, which have no separating wall, belonged to a father and his son. The father, Sabeni, lord of the First Nome of Upper Egypt, had the larger chamber to the left; his son, Mekhou, the chamber to

the right. **406** Sabeni's chamber contained three rows of six columns which, like his offering table and false door, were cut out of the rock face. Mekhou completed the tomb of his father, who had fallen in a campaign against the Nubians. He then made himself a chamber immediately to the right of it, as a funerary chapel. This contained two rows of squared columns, parallel to the two inner rows of his father's chamber.



SABENI'S TOMB, ENTRANCE: *The side walls formed by the natural sandstone cliff with its many-colored horizontal strata. Two simple steles without inscriptions stand before the entrance*



GROUND PLANS OF TOMBS OF SABENI AND MEKHOU: *The two communicating hypostyles of father and son are cut out from the living rock, transversely to the rock face. Based on Brunner*

Two steles without inscriptions flank the entrance to Sabeni's chamber. There **left** is no decoration. The austere dignity of the design is heightened by the horizontal layers of different-colored sandstone, which greatly impressed Paul Klee; their influence can be detected in his paintings.

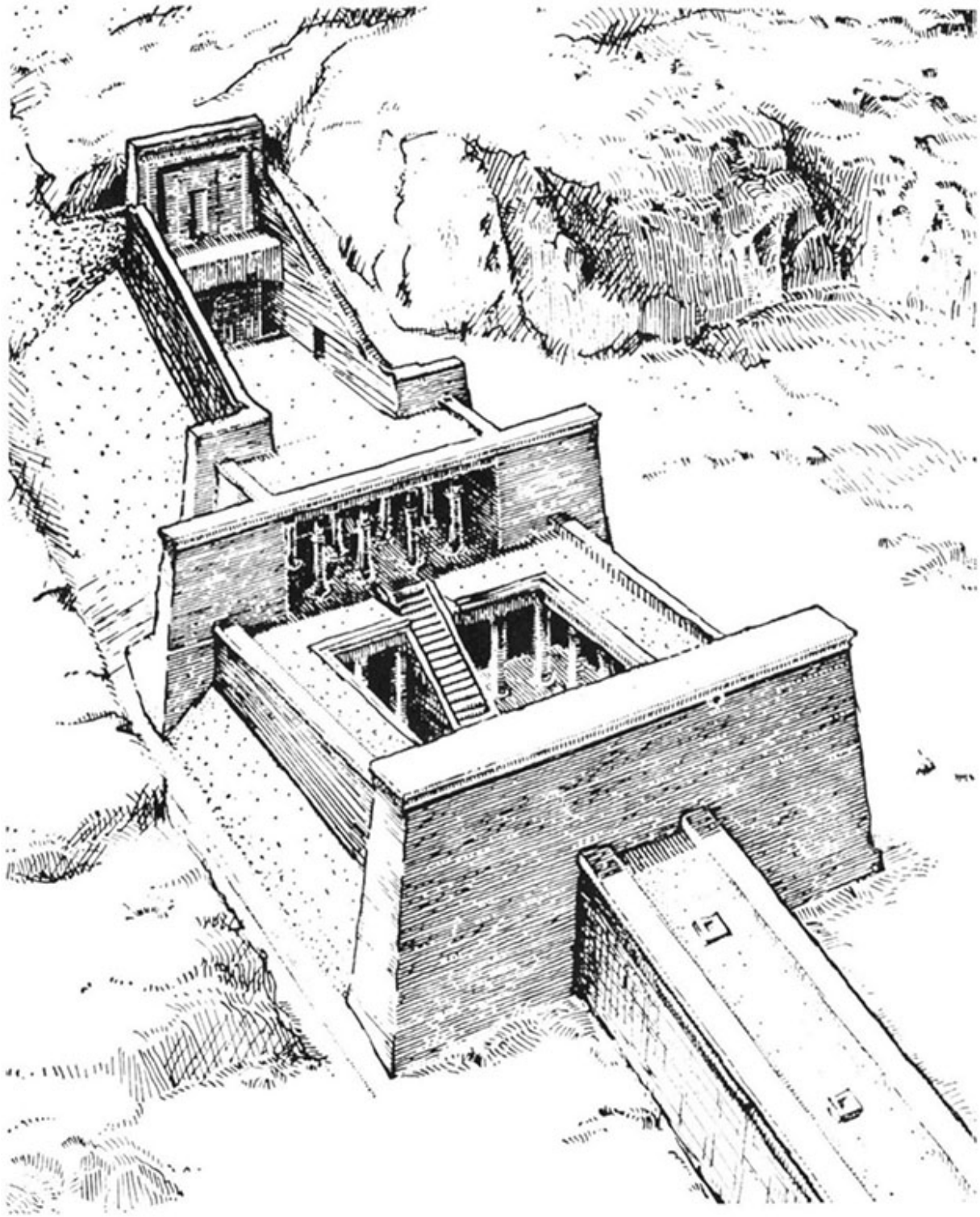
These dry facts cannot do justice to what was here accomplished, for in these tombs with their infinitely wide outlook the relation of death with the cosmos can be sensed more powerfully than usual. From their position halfway up the steep cliff wall that rises abruptly from the banks of the Nile, nothing limits the **405** view to the east. Stepping out from their entrances, one is embraced by the cosmic vault. We of today seem to gaze out into an endless void, but for the Egyptians the heavens were peopled. From the east the celestial bark emerged, its passengers renewed to life.

Almost at the foot of the cliff lay the island of Elephantine (near present-day Aswan), seat of the lords of the First Nome, which was at that time the southernmost boundary of Egypt. Elephantine was an important base of the tottering Old Kingdom, and probably in Sabeni's time the only actively functioning province. Its nomarchs, as Scharff says, "conducted a

lively caravan trade with the lands to the south, from which they imported precious goods of many kinds, in particular ivory and leopard skins — which were at that time used for priests' vestments" (Scharff and Moortgat, 1950, p. 70).

There is only a narrow terrace in front of the entrance to the tombs. A steep flight of steps leads up to it from the banks of the Nile, and in the center of the **404** stairway are two stone rails on which the sarcophagus rested as it was drawn up the cliffside. Thus it followed its symbolic wandering from light into darkness. Even without a valley temple, the sequence of the final royal journey of the Pharaohs was retained, with its causeway, funerary temple, tomb. Its impressiveness is in this instance strengthened by the wide cosmic view.

There were many variants of the ways in which the nomarchs cut their funeary chambers and tombs into the rock face, and numbers of these plans are given by Vandier (1954, II, pp. 293-357).

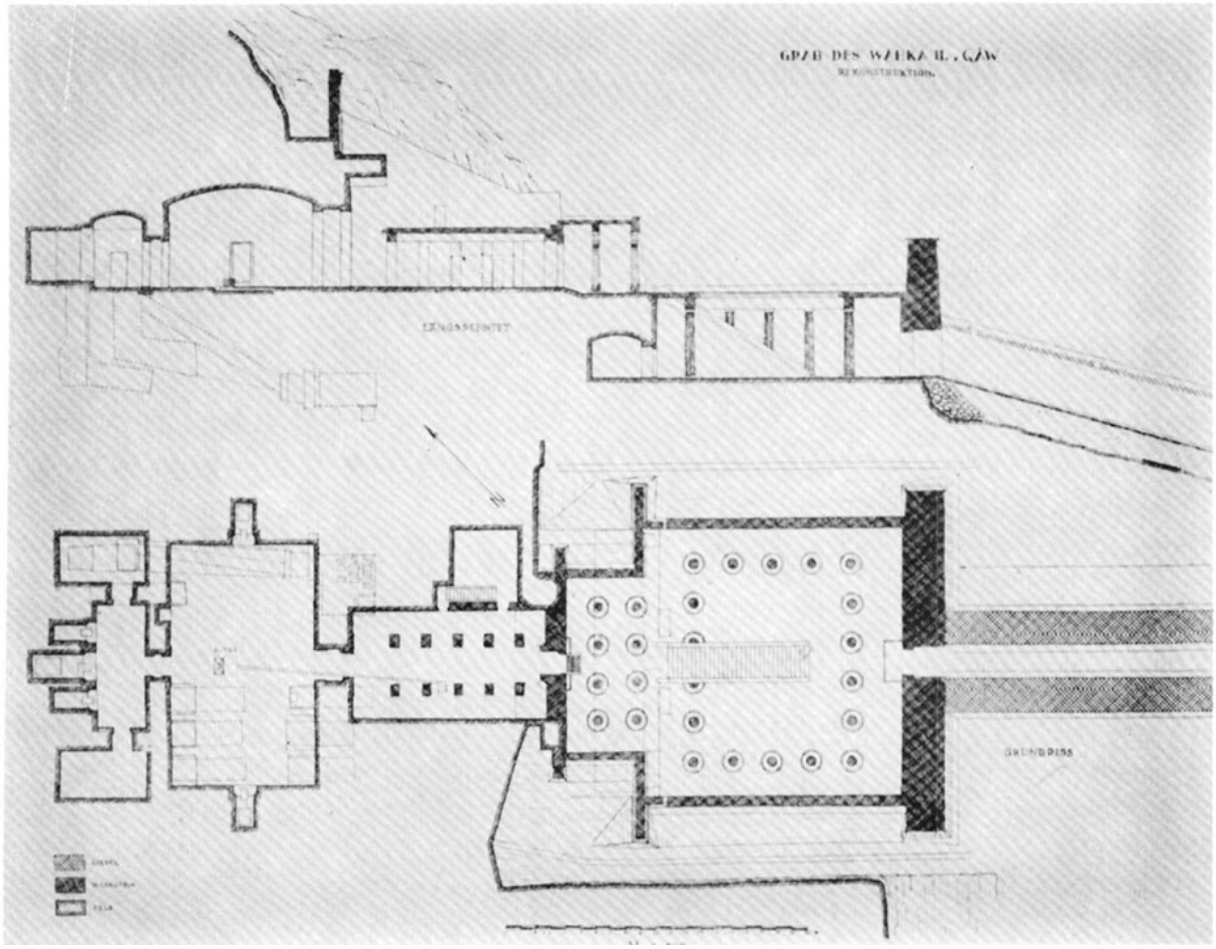


ROCK TOMB OF TWELFTH DYNASTY NOMARCH WAH-KA II: *The covered causeway leads from the fertile land to a pylonlike structure. Behind this is a square, colonnaded court, with stairway leading from its center to a small transverse hypostyle. Within is a longitudinal hypostyle approached by some steps. Beyond this the tomb chapel. Qaw el Kebir. Drawing after Steckeweh*

Later stage: Mentuhotep's mortuary temple and the nomarch tombs of the Middle Kingdom

The rock-tombs at Beni Hasan in Middle Egypt (Newberry, 1893), with their magnificent wall paintings, show distinct traits of the deeply penetrating ground plan (*Langraum).*

The Middle Kingdom nomarchs of Elephantine constructed their luxurious sepulchers within the sand-blown cliffs near Aswan, next to those of their Sixth Dynasty forebears and at approximately the same height. The most beautiful of these was built by Sarenput I, with a generously wide forecourt. It is tunneled deep into the cliff face but has no stepped terraces (Müller, 1940, pp. 1.5-51).

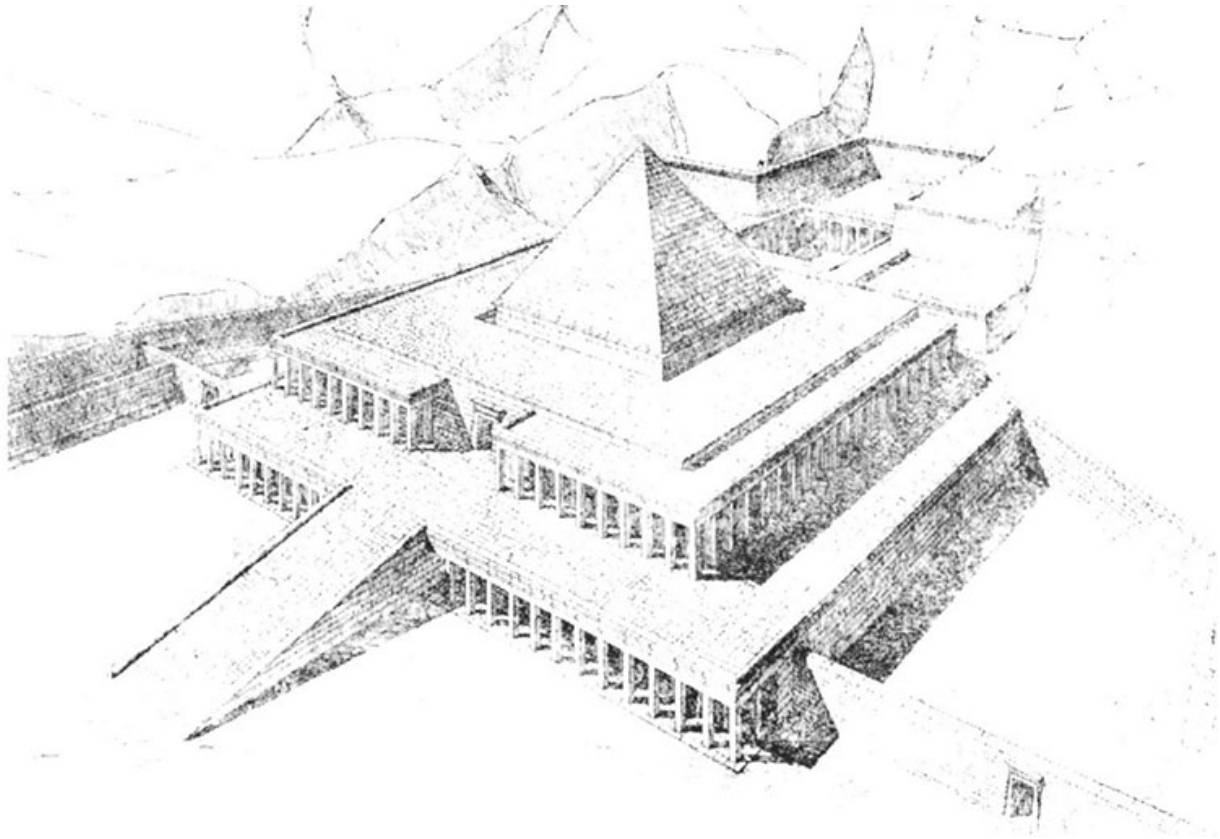


SECTION AND GROUND PLAN OF TOMB OF WAH-KA II *showing vaulted mortuary chapel cut into the rock. The strong emphasis on the longitudinal axis with its three levels hints at the later development — on a royal scale — of Hatshepsut's mortuary temple. After Steckeweh*

Among the forerunners of Hatshepsut's Deir el Bahari temple are the immediately adjacent funerary temple of King Mentuhotep, of the Eleventh Dynasty, and the rock-tombs of the nomarchs of Qaw el Kebir, built at the peak of the Twelfth Dynasty. These, with their terraces, are nearer the conception of the mortuary temple of Queen Hatshepsut.

Mentuhotep's terraced mortuary temple

Neb-hepet-ra Mentuhotep, restorer of power to the Pharaohs and founder of the Middle Kingdom, was the first to make the city of Thebes a royal residence. He built his tomb across the river from it, in the rock amphitheater of Deir el Bahari. Winlock, who has done so much to clarify the confusing history **413** of the Middle Kingdom, said: "Before Neb-hepet-rꜥ united the Two Lands he had started to build his mortuary temple under the western cliffs at Thebes on a scale larger than that of any of his ancestors" (1947, p. 38).



KING MENTUHOTEP'S MORTUARY TEMPLE, ELEVENTH DYNASTY : *The reconstruction shows unusually extensive use of porticoes on three sides; very large ramp leading to raised terrace; massive pyramid rising from center of second-level colonnaded hypostyle. Inner court (behind) leads to tombs of Mentuhotep's wife and daughters, cut into the rock face. Deir el Bahari. From Naville*

MENTUHOTEP'S MORTUARY TEMPLE TODAY: *View outward from inner court through the hypostyle, with the square substructure of the pyramid in the background*

The building gives the impression of many deliberate alterations: "A close inspection shows that, as finally finished, it had undergone innumerable changes in its plan" (p. 40). The ancient royal sequence — valley temple, causeway, mortuary temple — can again be recognized, though in some ways it is unclear. Despite its impressive grandeur, the structure lacks architectonic unity.

Mentuhotep's valley temple now lies beneath cultivated ground. The walled but roofless causeway, about 35 meters wide and 1200 long, led up to the temple court, which was surrounded by a high boulder wall. This court was of considerable size, and its dimensions recall the grand scale of Zoser's temple complex at Saqqara. Behind it rose the complex of the mortuary temple. Most unusual, in terms of Egyptian custom, was a portico of twenty-six columns which projected from its colonnaded hall.

An unusually broad ramp rose from the temple court to a second terrace, on **left** which stood the focus of the composition, the mortuary temple. Right and left of this ramp, sycamore and tamarisk trees were planted in deep pits of soil sunk into the desert sand: a sign of intimacy, of life brought into a zone of death, later to be developed by Hatshepsut.

Because it was raised upon a terrace, the portico of the temple court assumed far greater importance. It became an ambulatory surrounding three sides of the temple, which was itself enclosed within a massive wall. Within, the square hypostyle was a truly luxuriant forest of columns. It continued as a narrower, partly roofed, pillared court, behind which another, final hypostyle was excavated from within the rock wall. Along its sides niches were hewn out for six princesses. The site of Mentuhotep's actual tomb is not known with absolute certainty (ibid., p. 41).

This entire ground plan is an extreme version of the deeply penetrating rock tomb (*Langraum*), corresponding to the later nomarch tombs of Qaw, but here raised to royal magnificence.

The substructure of its low pyramid sat squarely in the midst of the great hypostyle hall. It rose ponderously — one might even say inorganically — above the flat roofs of the hall, and represented the result of many changes of plan, possibly brought about by the need to retain some ancient rite. Thus the greatest monument of the Middle Kingdom is a *Langraum* in ground plan and is pyramidal in elevation. This architectonic contradiction is probably one of the reasons it did not become a new building type.

Mentuhotep's mortuary monument gives the impression of a huge porticoed temple. Several such Egyptian temples exist: the temple at Medinet Habu near Thebes, Hatshepsut's temple at Wady Halfa, Amenhotep Ill's temple on the island of Elephantine, and others (Borchardt, 1938). Among the most delightful **364** is the small repository pavilion of Sesostris I, surrounded by a portico of squared pillars and adorned with delicate reliefs. Chevrier reassembled this little pavilion at Karnak, with infinite toil, from a number of remnants (Lacau and Chevrier, 1956). Mentuhotep's mortuary temple is, however, by far the largest porticoed building of Egypt. In the long run, this external exposure of colonnades does not seem to have accorded with the Egyptian mentality. Shadow-forming elements on the exterior of buildings are far more in keeping with the Greek perception.

The rock-tombs of the nomarchs of Qaw

During the Twelfth Dynasty another and more important precedent for the temple of Hatshepsut appeared in the rock-tombs of nomarchs of the Tenth Nome, at Qaw el Kebir. This was one of the most fertile of the provinces,

situated in the middle of Egypt about thirty-five miles south of Assiut. According to G. Steindorff, the tombs date from the peak period of the Twelfth Dynasty (Steckeweh, 1936, p. 8); according to Scharff, they date from the middle of this dynasty (Scharff and Moortgat, 1950, p. 103), which would be somewhere around 1900 B.C.

In marked contrast to the tombs at Aswan from the Sixth and Twelfth Dynasties, those at Qaw are almost in ruins. Only from reconstructions made by H. Steckeweh can we gain an impression of their architecture.

The tombs were of three nomarchs, Wah-ka I, Ibu, and Wah-ka II. The largest **408** was that of Wah-ka II. It started with a pylonlike brick structure. This corresponded to the valley temple. Then came the causeway, leading through a pylon with sloping walls into a court surrounded by a proto-Doric colonnade. In the middle of the court, a broad flight of steps led up to a second terrace on which **409** stood two rows of columns, each formed like four bundles of papyrus reeds. This narrow terrace lay across the complex like a barrier in front of a slightly raised hypostyle whose ten pillars formed a colonnade projecting into the rock, while its roof created a third terrace platform. All this was just an architectural prelude, but the prelude has now become the main theme of the composition. From the third terrace one entered within the rock itself, into the chamber for offerings and burial rites. This great chamber, cut deep into the rock, was completely free of columns and was roofed by a high, segmented vault. From it one entered the most secret parts of the tomb.

MORTUARY TEMPLES OF HATSHEPSUT AND MENTUHOTEP: *Mentuhoteps temple is ideologically based on the pyramid and internally oriented; Hatshepsut's, with its three generous terraces, embraces the external landscape. The first two terraces are approached by ramps. In 1922, when H. E. Winlock made this picture, the innermost sanctuaries were incompletely excavated. Deir el Bahari*

The special feature of this structure and of its two immediate neighbors, the tombs of Wah-ka I and Ibu, is their clear sequence of terraces and the emphasis laid on the longitudinal axis. At the same time each separate zone was "announced by a distinct front elevation" (Steckeweh, 1936, p. 32). Here was an experiment in working with different levels on a small scale but with a purely architectural basis.

"We find ourselves," says the excavator, "in the largest and most beautiful private structure known from the period before the New Kingdom . . . the summit of provincial art in the Middle Kingdom" (p. 31). What appears here on a small scale and with a certain hesitation (shown by the repetition of horizontal barriers) is a foretaste of the radiant site planning of Hatshepsut's temple, where the tomb itself has vanished, and only a small funerary chapel cut into the rock indicates the original purpose of the structure. Later on in the Middle Kingdom, Sesostris III (1878-1842 B.C.) took the reins of office firmly into his own hands and the princely tombs of

the nomarchs disappeared. From that time on, they had no significant architectural influence.

THE TERRACED TEMPLE OF QUEEN HATSHEPSUT

We stand at the beginning of the fifteenth century B.C. The Hyksos have been expelled and the New Kingdom founded by the Eighteenth Dynasty, which was to rule for more than two hundred years (1552-1302 B.C.). Its Pharaohs possessed sharply determined and contrasting personalities: rugged conquerors like Tuthmosis III; Hatshepsut, equal in greatness, though feminine and peace-loving; Amenhotep IV (Akhenaten), utterly different again, a religious puritan and iconoclast; finally the young Tut-ankh-amon, near the end of the dynasty, the splendor of whose funeral trappings gives a glimpse of the intricately subtle luxury of an overweary royal court.

Queen Hatshepsut ruled about two decades (1490-?1469 B.C.), but we do not know exactly how and when her reign ended.

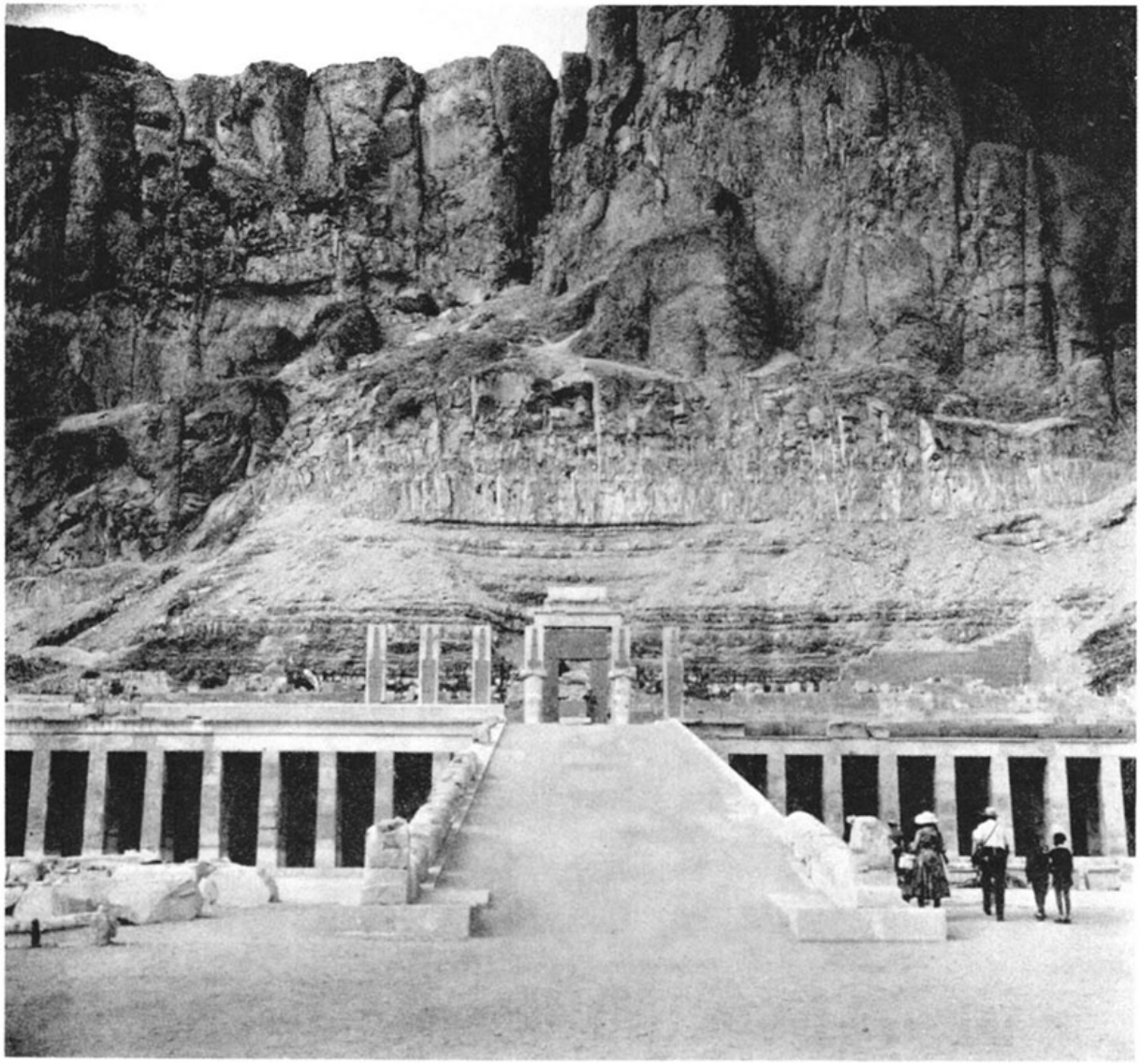
Theoretically, the position and title of Pharaoh could only be assumed by a man. This explains why almost all the many statues of Hatshepsut in her terrace temple show her with a manlike shape. Only her face reveals her female charm.

Hatshepsut, her strongly feminine nature hemmed in by the inflexible laws of Egyptian protocol, was first married to her physically frail half brother, Tuthmosis II. He died a few years later. An infant, Tuthmosis III, son of Tuthmosis II by a concubine, then became Pharaoh. At first, Hatshepsut ruled as regent on behalf of this stepson, who later became Egypt's greatest warrior king. But soon, basing her claim upon her superior direct descent from a queen of royal blood, Hatshepsut proclaimed herself ruler of the two lands — Upper and Lower Egypt. She became Pharaoh, adopting both the title and the official dress and insignia.

Hatshepsut and Senmut

Into her life of solitude came Senmut. He gradually rose, step by step, until he became the "greatest of the great" (Winlock, 1942, p. 150). He possessed two rare talents seldom found together: he was a great artist and a great

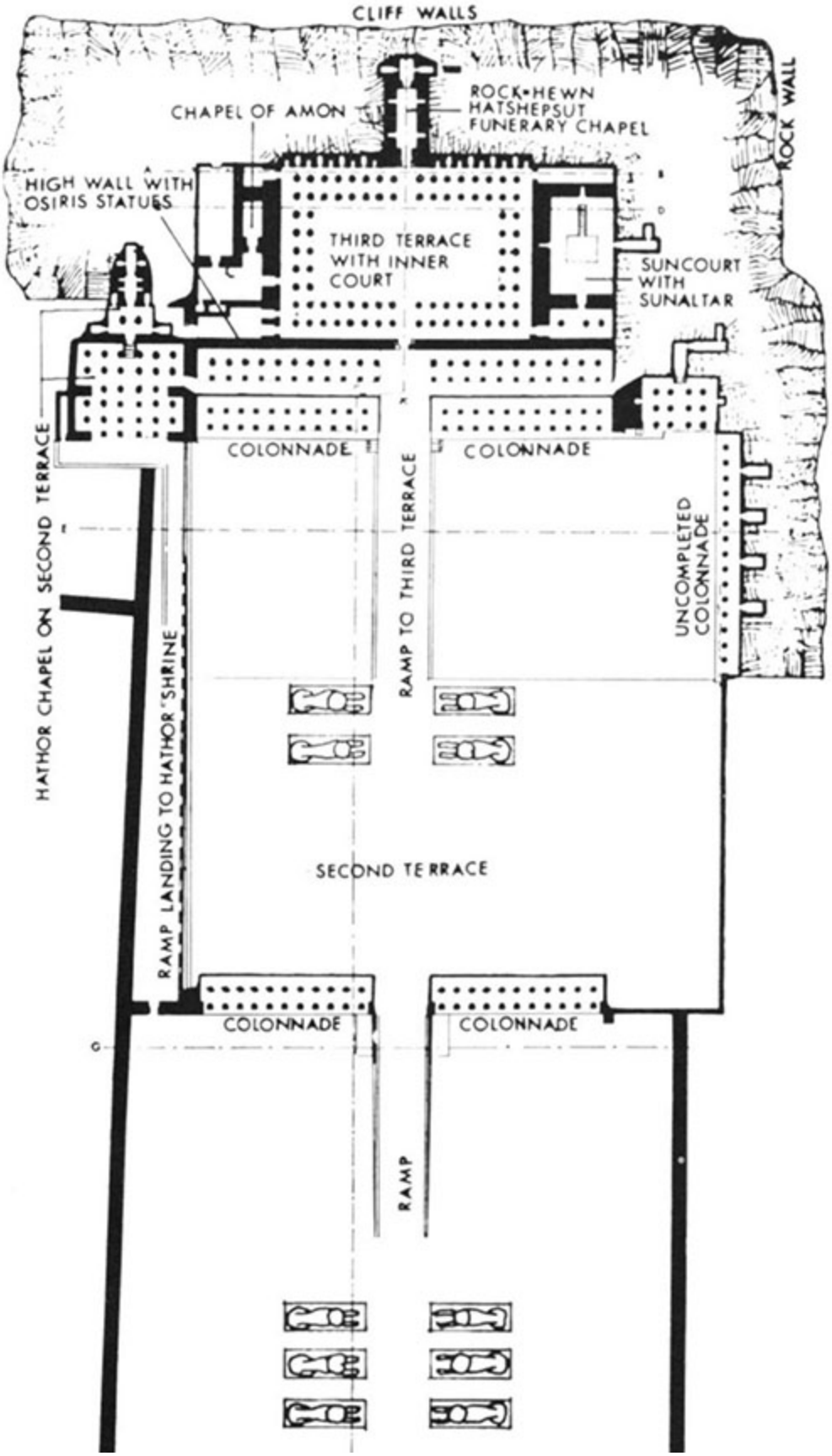
administrator. All the key positions of the kingdom were in his hands. His architectural genius is what concerns us here. It is always difficult to give vent to any personal expression when, as in Egypt, a strong and in itself splendid tradition prevails. To enable an individual voice to be heard, as it was at Deir el Bahari, great strength and courage were necessary. Only when there is a close accord between architect and client, and when the architect is able to bring to life something already slumbering in the mind of the client, is it possible for a strong conceptual imagination to find a solution within the bounds of an all-powerful tradition.

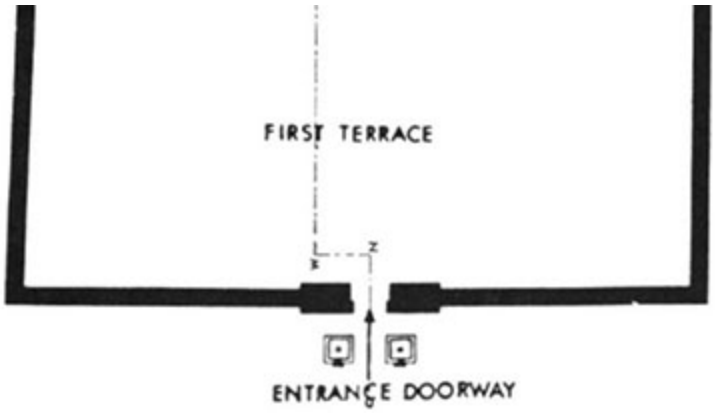


HATSHEPSUT'S MORTUARY TEMPLE: *Ramp from second terrace. This second broad ramp leads to the third terrace with its sanctuaries*

This is a general truth that has particular relevance for Egypt. The close collaboration **Part VII** of King Zoser and Imhotep, a universal genius not unlike Senmut, resulted in the birth of stone architecture. Now, in the Eighteenth Dynasty, another and even closer collaboration can be observed between Hatshepsut and Senmut. What made this blossom was the close spiritual and corporal affinity between Hatshepsut and her steward.

Senmut possessed almost unlimited power. He was the Steward of Amonf which meant he was administrator of all the vast estates of the great temple of Karnak. He was "Overseer of All of the Works of the King in the Temple of Amon," and finally, "Overseer of Overseers of All of the Works of the King" (Winlock, 1.928, p. 5*0).* In other words, all responsibility for both design and execution was united in the hands of a genius. Senmut brought to realization the qualities of Hatshepsut's nature. This we can see at Deir el Bahari — a unique event in the history of architecture.


CLIFF WALLS
ROCK-HEWN HATSHEPSUT FUNERARY CHAPEL
CHAPEL OF AMON
ROCK WALL
HIGH WALL WITH OSIRIS STATUES
THIRD TERRACE WITH INNER COURT
SUNCOURT WITH SUNALTAR
COLONNADE
COLONNADE
HATHOR CHAPEL ON SECOND TERRACE
RAMP TO THIRD TERRACE
UNCOMPLETED COLONNADE
RAMP LANDING TO HATHOR SHRINE
SECOND TERRACE
COLONNADE
COLONNADE
RAMP



GROUND PLAN OF HATSHEPSUT'S TEMPLE. *After Naville*

Senmut had official entry to the most private sphere. Hatshepsut made him high steward of her own household and also "Superintendent of the Private Apartments, of the Bathroom, and of the Royal Bedrooms as well" (p. 52). Besides this, he was chief guardian of Hatshepsut's daughter Neferu-ra, who died **420** as a child and with whom Senmut is often portrayed in block statues.

All these high offices were known to everyone. More revealing are the hidden indications of their relationship. When Senmut prepared his second tomb, tunneling toward the sacred precincts of the temple, he placed an inscription upon its marvelously designed astronomical ceiling, linking his own name with that of the queen, and even with that of the god Horus: "Long live the Horus . . . the King of Upper and Lower Egypt, 'Maatkare' [Hatshepsut], beloved of Amon, who lives, and the Chancellor, the Steward of Amon, Senmut" (p. 57). This might have appeared an even greater blasphemy to an Egyptian than the fact that Senmut, mere mortal, had his portrait painted behind every door in the temple of Deir el Bahari.

Although Senmut and Hatshepsut had to be buried in different places, their sarcophagi were identical.

RED GRANITE SPHINX OF HATSHEPSUT: *From the second terrace of her temple*

SPHINX HEAD OF HATSHEPSUT: *Even deliberate mutilation could not destroy the charm of her face*

Egyptian inscriptions are invariably reticent when it comes to the personal sphere. We have little more than indirect hints of the relations of the queen with her steward. In one of the quarry foundation deposits was an alabaster shell inscribed with the name of Hatshepsut, and with it, a little alabaster saucer on which was the name of Senmut (p. 38).

*"*As is usual only for highly born married couples, the names of Senmut and Hatshepsut were inscribed next to one another upon beads found in the foundation deposits of the terrace temple" (Hermann, 1959, p. 47). Even more revealing are some enigmatic symbols on the shoulders of two block statues of Senmut with the little Neferu-ra, which are now in the Berlin and Cairo Mu**below** scums. Senmut, squatting, throws his cloak around the little princess. A perspicacious study by É. Drioton discloses that the two names of Queen Hatshepsut are here presented as a cryptogram (1938). On one shoulder, Senmut replaced the cartouche that normally encloses the royal names by a representation of the vulture-goddess Nekhbet, who since the days of Zoser had always been shown hovering protectively above the king. This vulture he then transformed into symbols that formed a cryptogram for the first name of the queen: Maatkare (p. 235, fig. 17). On the other shoulder stands the fantastic figure of a god, bearing symbols instead of a head. This signifies the second name of the queen: Hatshepsut. Drioton says that Senmut states with pride that he himself engraved the signs "following the ideas of my heart and with my own hands" (p. 231). In other words, secretly to carve the names of one's queen as cryptograms upon a statue is not very different from cutting the initials of one's beloved into the bark of a tree.

BLOCK STATUE OF SENMUT *with the little princess Neferu-ra*

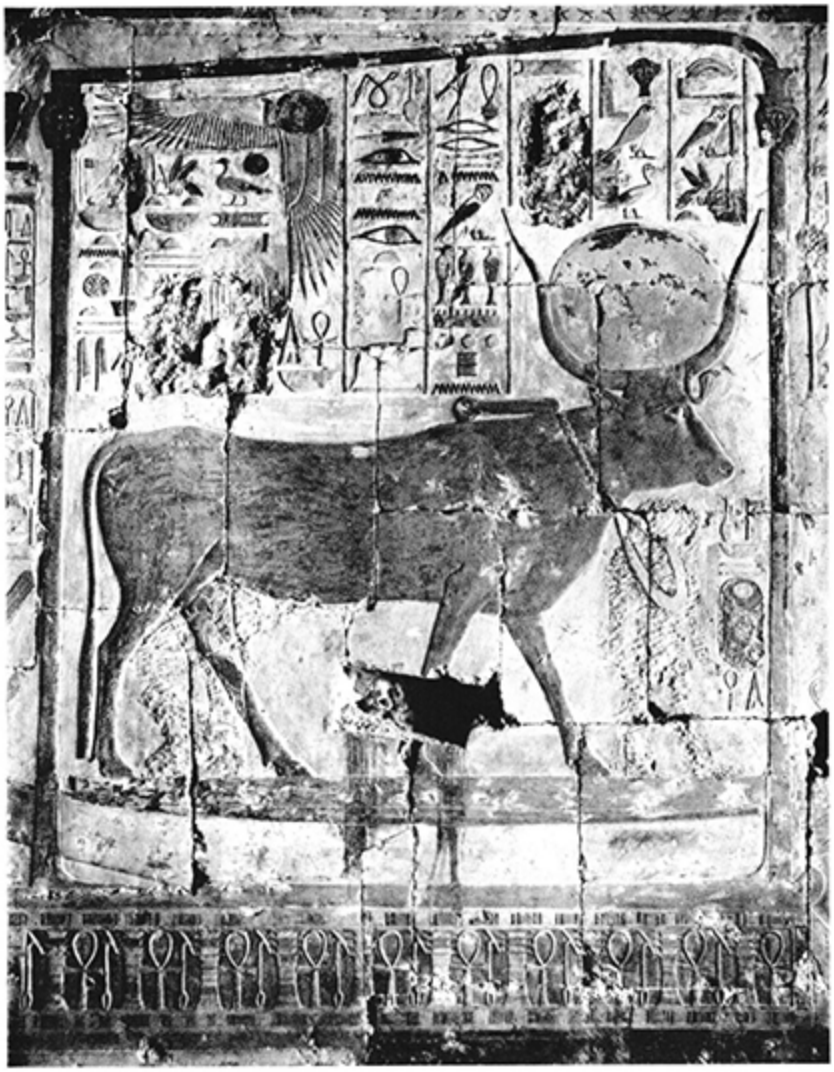
We do not know the circumstances under which Queen Hatshepsut ended her reign, nor the causes of the downfall and death of Senmut during her last years. She has not been too favorably handled by Egyptologists. She was certainly a "vain, ambitious, and unscrupulous woman" (Hayes, 1959, II, p. 82), and Vandier writes that "Queen Hatshepsut was too busy with the domestic difficulties she had created for herself by her own ambitions to interest herself [like Tuthmosis III] in the affairs of Asia" (Drioton and Vandier, 1938, p. 382). Hatshepsut did not trouble herself overmuch about Asia. Hers was not the character of a world conqueror. She came between two warrior kings, Tuthmosis I and Tuthmosis III, Egypt's most aggressive conquerors. To measure her by the yardstick of these two war heroes is to compare two diametrically opposite approaches to life. Hatshepsut was a profoundly feminine woman. Here lay her genius. "Violence and bloodshed had no place in her make-up. Hers was a rule dominated by an architect" (Winlock, 1928, p. 52). What she longed for and worked for was — in a word — peace upon earth.

This is apparent in the beautiful reliefs behind the colonnades of her temple terraces. These scenes stand as a silent protest against all bombastic representations of a victorious Pharaoh slaughtering his enemies — from those of Narmer to those of the Ramessides. When Hatshepsut depicted regiments marching with trumpets, drums, and banners behind the colonnade of the lowest terrace, it was to acclaim the ceremonial erection of one of her obelisks in the temple of Karnak. When, on the second terrace at Deir el Bahari, she showed the equipping of an expedition, it was one she sent to the land of Punt to bring about the peaceful exchange of Egyptian manufactures for ebony, leopard skins, incense, and sweet-smelling trees for the temple of Karnak — and perhaps also for Deir el Bahari. In the hypostyle hall of the Hathor shrine at Deir el Bahari, we find a favorite subject, repeated in other parts of the temple: "It is a festive procession of soldiers, carrying arms, boughs of trees, and sacred standards. These men are called 'the dancers of the royal boats.' They . . . enliven the navigation or the festival by dances and songs" (Naville, 1901, p. 2).

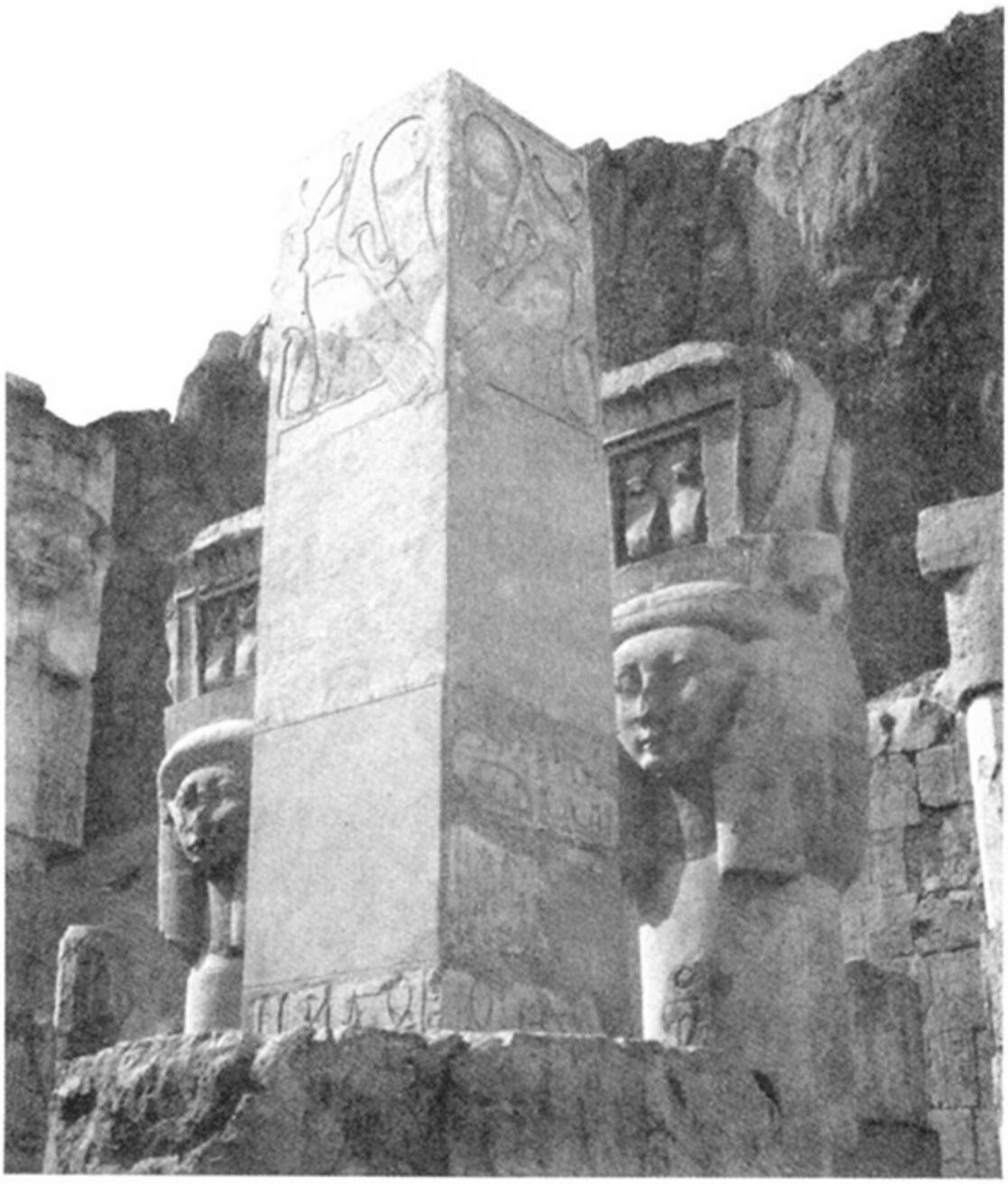
Slowly this view of the queen has gained acceptance. Hatshepsut's personality was not only her private affair. She made it visible and left it recorded for all time. As early as 1933, Junker (p. 110) pointed out that Hatshepsut's name had become unusually deeply embedded in the history of the country, and Hermann brings out her wider ideological and personal

background. Her ancestral line on the female side had close relations with Crete, and Hatshepsut “seems to have inherited a special cultural tradition from her female forebears. The most noteworthy aspect of her reign — its determinedly peaceful policy — can be seen not only as an expression of her femininity but also as similar to the conception of peace held by the Cretan-Minoan culture” (Hermann, 1959, p. 38). The unwalled cities of Crete were based on peaceful mercantile trading across the seas. “A newly awakened love of sea adventure, which one would like to associate with the queenly tradition of Crete, is hinted at in her great trading expedition to Punt” (p. 39).

HATSHEPSUT NURTURED BY HATHOR: *Relief on the south wall of the Hathor chapel with Hatshepsut in the likeness of a young boy drinking from the udder of the divine cow*



HATHOR AS THE DIVINE COW: *Relief on the north wall of the Hathor chapel showing Hathor, the "Golden one," with the sun disk between her horns and the sistrum (menit) around her neck, standing majestically upon her sacred boat beneath a canopy. The two figures of Hatshepsut as well as her cartouches were chiseled out by Tuthmosis III*



DOUBLE-HEADED HATHOR COLUMNS: *These two columns stand in the first hypostyle to the Hathor chapel*

Reliefs behind the peristyle in the center of the second terrace depict Hatshepsut's fanatical determination to legitimate herself as Pharaoh, since each year added to the age of the young Tuthmosis III and threatened her position. Her only weapon was her legitimacy. It was not enough that she

had inherited royal blood both from her mother and from her father: She presented herself here as the direct daughter of the god Amon, who had visited her mother in her father's guise.

Undoubtedly Hatshepsut was vain. On the whole, Deir el Bahari has but a single theme: Hatshepsut. Anything else is ancillary. Just as a woman conscious of her beauty never tires of gazing at herself in a mirror, the queen placed statues of herself everywhere, in every position, standing, kneeling, with an offering in her hands, as a sphinx, or as Osiris.

Normally, such a number of self-portraits in metamorphosis would become irritating, but here they are handled with such sculptural quality that irritation never arises. Further, one recalls the words engraved in the rock, which were probably a true description of her at the time she commenced the temple, probably the fifth year of her reign: "To look upon her was more beautiful than anything; her splendor and her form were divine; she was a maiden, beautiful and blooming" (Winlock, 1942, p. 144).

The structure of the temple

The plan developed steadily: “When Hat-shepsūt and her architect, Sen-Mūt, planned to build a temple on the West of Thebes, the only imposing structure there was this temple of Neb-hepet-Rᵉ [Mentuhotep], the first Theban king of all Egypt. Its plan was their logical model, and the space beside it an inviting site. Clearly their ambitions did not, at first, rise to the point of attempting anything as large as the temple of the founder of Thebes. . . . Before Sen-Mūt was finished he had built a temple of which the actual structure, not counting its courtyard, covered over three times the area called for in his original plan — **413** making its floor over double that of Neb-hepet-Rᵉ’s temple — and had altered nearly every feature except the general scheme of terraces with colonnaded porches.” (Winlock, 1942, p. 135). The ancient sequence was maintained: valley temple, causeway, mortuary temple, and, finally, the funerary chapel piercing into the rock face. But an entirely different architectural form emerged. Here everything is freer, more delicate, more open than in any other Egyptian architectural complex, before or since.

There were three terraces, extending from the edge of the cultivated lands **262 col** right into the cliff wall. Parts of them were cut directly out of the rock. Broad, gently sloping ramps connected one terrace with another in regal composure. The most striking aspect of the whole complex was its upward direction. True, the lowest terrace was walled about and entered through a doorway, and the **417** uppermost, which led into the rock wall, was shielded by a wall. These were ritualistic precautions. But they were organized so that they in no way impaired the spatial freedom of the layout. This was due to the grandiose dimensions of the terraces themselves; to the relationships set up between the vertical colonnades and the horizontal expanses; and to the articulation of the walls.

The second terrace appeared the largest and most open. It must have been the last resting place of the procession before it entered the enclosed inner sanctuary. Every year the small wooden statue of Amon departed in his sacred bark from the darkness of his cell in his temple at Karnak to visit Hatshepsut’s temple and to be installed in the chapel dedicated to him within the rock face behind the uppermost terrace.

Sandstone sphinxes of modest size stood to right and left of the processional way leading up from the rim of the cultivated lands. Within the temple precincts they were succeeded by very large and beautiful sphinxes of red granite. **418** One, assembled from many fragments, is now in the

Metropolitan Museum, New York: “Over eleven feet in length and weighing in the neighborhood of seven and a half tons, our reassembled sphinx is a massive piece of architectural sculpture” (Hayes, 1959, II, p. 93).

If ever a place was organized to accommodate a large number of privileged persons, it was the second terrace. The view opened out, so that the eye could gaze far into the wide landscape, across the Nile to the temples on the opposite bank. The gold-sheathed pyramidion of Hatshepsut’s obelisk at Karnak is said to have been visible from here.

To the right, the rock bastions immediately behind the colonnade draw the **519** eye irresistibly upward. Into this scenery, enlivened by the most daring asymmetry, a formal element was introduced: a colonnade of proto-Doric columns upon the north side. It was never completed.

One was now fully prepared for the actual purpose of the building complex: the rites for the dead. Behind the colonnaded hall to the right is a small but well-preserved shrine of the jackal-headed Anubis. To the extreme left, **261 col** projecting slightly forward from the long colonnade, is the rock-hewn, vaulted shrine of Hathor. Great care was devoted to this shrine because of the special significance of the goddess Hathor as guardian of the necropolis of Thebes. Its spatial refinement exceeded that of any other part of the temple.

There was already a Hathor shrine at the north end of Mentuhotep’s neighboring temple, visited by both earlier and later generations. It was excavated by Naville, who found a well-preserved sculpture of Hathor as a cow within a painted barrel vault. This vault and cow are now in the Cairo Museum. Hathor **81** is shown in her original bovine form, striding out from the papyrus swamps of the west to give direct protection to the king.

Hathor also often appears in her cow form on the delicate reliefs of her shrine in Hatshepsut’s temple — and in ways that show again the queen’s determined personality. Certainly she is sometimes shown as a goddess, with a long scepter in her hand, receiving offerings. But the scenes in which she appears as a cow are more arresting, as when she licks the outstretched hand of the queen, the meaning being explained in the text: “To kiss (lit. to smell) the hand, to lick the divine flesh; to endow the king with life and purity (or happiness)” (Naville, 1901, p. 3).

The grace and dignity with which the divine cow stands in her sacred boat **423** sheltered by a canopy on the wall of the deepest part of the shrine,

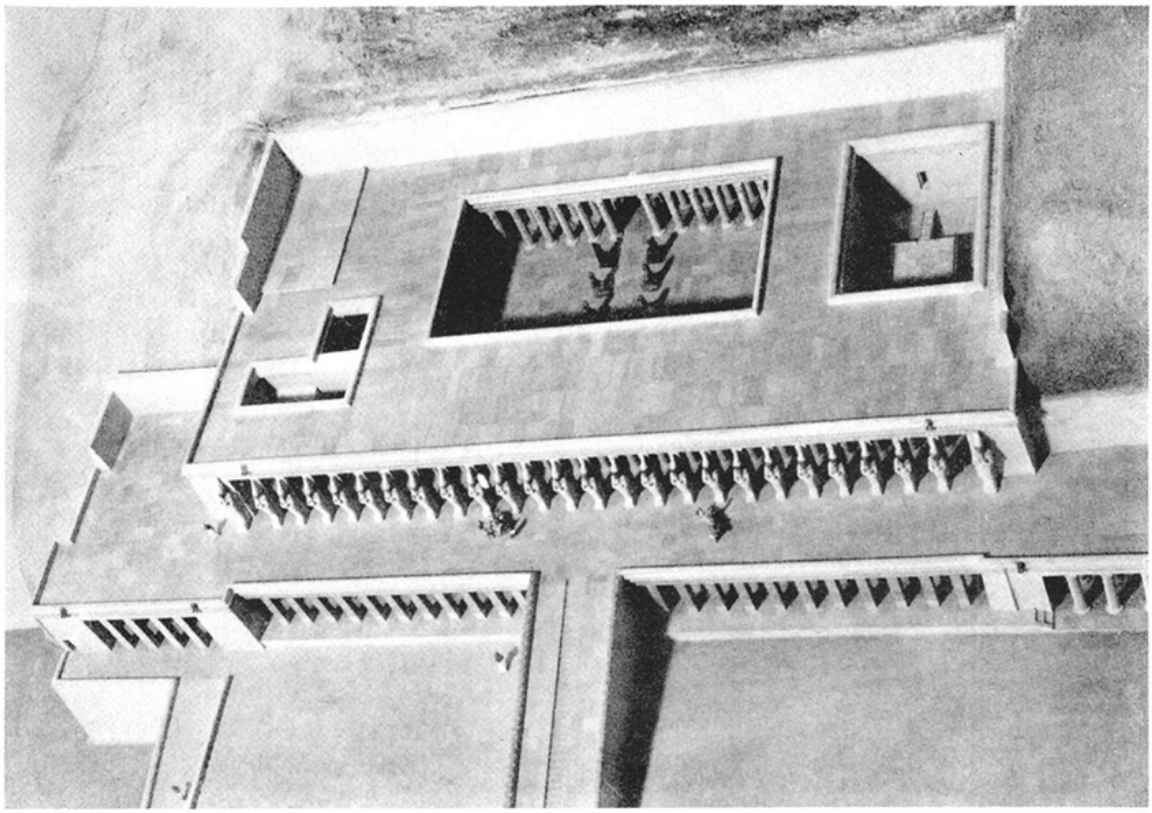
hewn into the rock face, bears comparison with the best prehistoric animal engravings. The queen appears three times, each figure defaced by Tuthmosis III. First she stands beneath Hathor's head, "with the appearance of a grown-up man, and wearing the insignia of royal power" (p. 5). Next she crouches as a youth beneath Hathor's belly, drinking from her udder while Hathor declares: "I have suckled thy Majesty with my breasts. I have filled thee with my intelligence, with my water of life and happiness. I am thy mother, who formed thy limbs and created thy beauties" (p. 4). On the right of the panel Hatshepsut stands in her own form, presenting offerings of wine, fruit, vegetables, and meat.

In the farthermost recess of the shrine are the only undefaced representations of the queen. In one she is again shown as a young boy suckled by Hathor, and **422** this may have escaped erasure because a relief of Hatshepsut and Tuthmosis, kneeling one behind the other with offerings of milk and wine, is placed just above the adjacent opening to a small niche. Within this niche, immediately around the corner from the divine Hathor with the young Hatshepsut, Senmut could not resist placing his own figure.

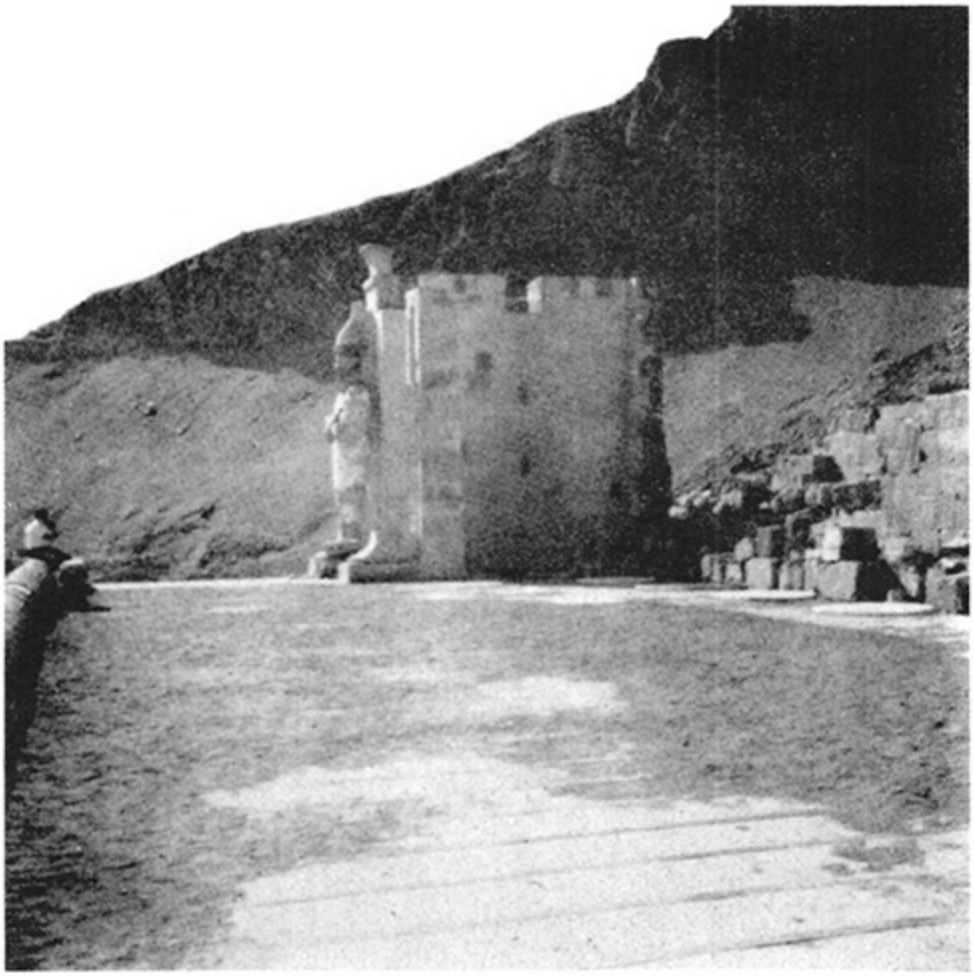
The Hathor shrine of Hatshepsut's temple is organically integrated into the complex, but it could be directly approached from the valley by a gently sloping ramp, as is easily seen from the model. Upon the smallest surface, at the extreme **429** south end of the terrace, is a sequence of chambers hewn out of the rock, increasing in height, accompanied by ramifications of subtly modeled side chambers **261 col** and terminating in a barrel-vaulted niche. In front of this sequence stand **424** two hypostyles, one of them with two squared pillars surmounted by double-headed Hathor capitals, facing east and west.

BUST OF OSIRIS STATUE *with the face of Hatshepsut. From the third terrace*

OSIRIS STATUE ON THIRD TERRACE: *This reassembled statue with mutilated face stands before the high wall of the third terrace, protecting the sanctuaries within*



MODEL OF UPPER TERRACES: *The ramp leading up from the second terrace to the palisade of Osiris statues before which a long and generously wide terrace gives an unhampered view across the Nile valley. To the extreme left an independent entrance from ground level to the Hathor chapel is indicated. Within the right-hand inner court stands a sun altar*



PRESENT STATE OF THIRD TERRACE: *An Osiris statue, the partly reconstructed wall, and, in the foreground, the open terrace*

A second ramp leads to the third and uppermost terrace: the innermost sanctuaries enclosed within a high wall. Against this wall stood a row of tall, **428** polychrome Osiris statues, all bearing the face of the queen.

A narrow granite entrance gave access to these innermost sanctuaries, but in front of the forbidding wall with its Osiris statues, place was left for a generous terrace running the whole width of the temple, giving a last all-embracing outlook **429** over a sun-bathed world — a fitting setting for a luxury hotel of the twentieth century.

The wall signified the end. Around the inner court stood an assembly of sanctuaries, concentrating the real purpose of the project at a single point.

The whole temple was dedicated to Amon-Ra, guardian of all mortuary temples of the New Kingdom dynasties. The different chapels which lay to

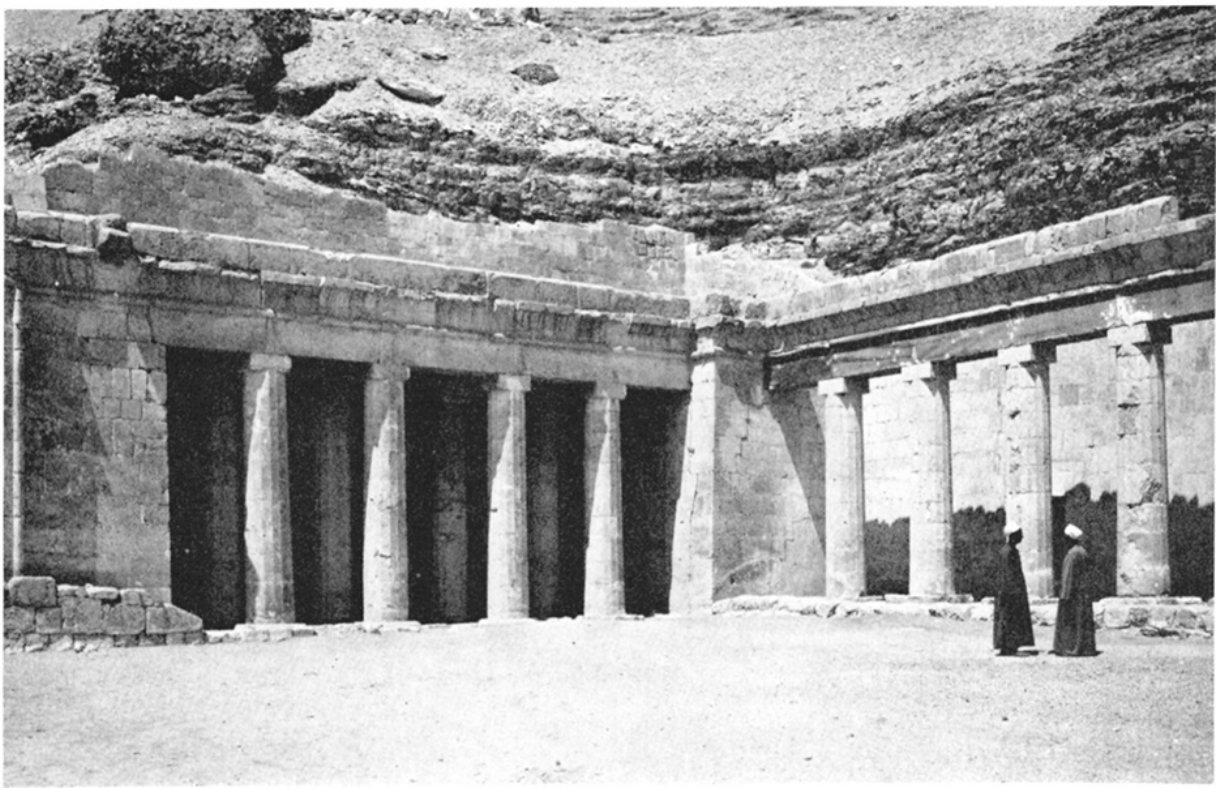
right and left on this upper terrace display nothing out of the usual, architecturally speaking. The vaulted funeral chapel for Hatshepsut and her father, Tuthmosis I, hewn deep into the rock, is the culminating point of the composition and leads directly back into darkness.

Inseparability of sculpture and architecture

The position assigned to this mortuary temple at Deir el Bahari in the whole realm of Egyptian architecture varies. But the synthesis of sculpture and architecture here achieved had no parallel in Egypt, either earlier or later. It was far removed from the oppressive near view of the colossal architecture of later Pharaonic temples. At Deir el Bahari all was subordinated to the human scale and to the distant view. The sculpture does not dominate the architecture, nor does the architecture dominate the sculpture. They complement one another. They have become indivisible.

To unite sculpture and architecture so that each enhances the other instead of being intent upon leading its own independent existence is one of the most delicate of all problems. Very seldom is the union achieved. When it is, we have one of those rare and blessed occasions when architect and client are of one mind and wish to give expression to the same idea.

The subtlety of the cohesion between sculpture and architecture at Deir el Bahari cannot be grasped at first sight. One senses it through the disposition of forms rather than through the forms themselves, much as one senses what lies between the lines of a well-written book. This unity cannot be understood unless one realizes the close relation of architecture and sculpture to religion. Much later, in the Gothic cathedrals — themselves the end products of a long period of development — thought and form were again blended into a synthesis.



NORTHWEST CORNER, SECOND TERRACE: *Natural rock bastions hover above the man-made structure in an ever-menacing gesture. This architecture, like the pyramids, is conceived in cosmic terms, but at this happy moment it never transcends the human scale*

A strong sculptural contrast was consciously sought on the third terrace. The palisade of polychrome Osiris statues formed the protective wall of the sanctuary, excluding all the uninitiated, but its presence was scarcely felt. Each colossal statue of the usually forbidding god of death bore the youthful face **428** of the queen. Although color was elsewhere used with great restraint, these figures were painted to be seen from a distance, with "the long, curved Osirian beard, painted blue. . . . Their throats and faces are red with white and black eyes and blue eyebrows, and the various attributes which they wear or hold are red, blue, and yellow" (Hayes, 1959, II, p. 91).

In this mortuary temple, Hatshepsut was most frequently represented in the mummified form of Osiris, lord of the underworld: her arms crossed over her **428** breasts; her right hand holding the scepter *was,* a shepherd's crook with a straight stem that was believed to bring its owner wealth and prosperity; her right hand holding the sign of life, *ankh,* and a flail.

After the upsurge of the cult of Osiris, toward the end of the Old Kingdom, the god of death and his symbol — eternal renewal — became of greater significance. In this temple he was first depicted in the two gigantic statues on either **429** side of the lowest colonnade; then in the row of polychrome statues on the upper terrace; finally in niches let into the rock. Always the mummified form predominated, bearing the face of the queen.

Rows of Osiris statues were no innovation. Series of them had already appeared **366** in temples, as in the hypostyle of Hatshepsut's father, Tuthmosis I, at Karnak. But the disposition of the crowning row of Osiris statues at Deir el Bahari was far more exciting. Here they were placed on the outer side of the wall of the innermost sanctuary, both protecting it and — in their mass — proclaiming it far across the fertile land. The treatment of the figures is handled with unusual skill. A moment's comparison with later clumsy Osiris statues will show their grace. Moreover, they were not mechanical replicas of one another. In their faces, despite all mutilations and hieratic formality, the charm and beauty of the queen break through, with her great eyes and ripe lips. These details show the tremendous care taken over normally routine pieces of architectural sculpture.

Freestanding statues — sculpture in the round — had no place in Egypt. The wall always stood behind them like a protecting shield. The only freestanding **419** sculptures at Deir el Bahari were the sphinxes that bordered and protected the processional way.

The low reliefs at Deir el Bahari are not placed upon the outer faces of the buildings. They lie concealed behind the double colonnades of the open courts. They are executed with the greatest freshness and, even for Egypt, they breathe an air of rare felicity.

That Hatshepsut was able to hold Tuthmosis III in check and reduce him to the role of a prince consort, though his empire later extended from the Fourth Cataract of the Nile to the Euphrates, is a measure of the intensity which must have possessed her spirit. But he took a heavy revenge. Only years of bitter pent-up fury can begin to explain his frantic destruction of Hatshepsut's sanctuary in his determination to obliterate all memory of her. Her figure and her name were chiseled out of almost every relief. Her sphinxes were smashed to pieces. "The destruction gang," writes Winlock in his exciting account of the excavations, "first threw them all on their sides and then hammered them on their hips with a big maul until they

snapped asunder at their weakest points. . . . [The bits] were carried off to the nearest hole and dumped into it" (1942, p. 77).

From nooks and crannies, the Metropolitan Museum expedition retrieved many fragments and pieced them carefully together. As a result, the museum's collections now provide a rare insight into the splendor of the sculptures of this temple (Hayes, 1959, II, pp. 82-106).

Buildings and nature

Everything in Hatshepsut's temple betrayed the human touch. Though its purpose as a memorial temple was fully expressed, one cannot conceive of a more majestic processional way. Its ruins even today show with what mastery its sequences of ramps and terraces expressed the eternal Egyptian concept of an upward wandering into the hereafter. The relaxation achieved here contrasts **262 col** strongly, not only with the neighboring temple of Mentuhotep, but also with **410** the stepped ziggurats built in Mesopotamia half a millennium earlier. **226**

Just as Osiris, the god of death, bears in his hands the symbol of life, with its hope of an eternal existence, so this mortuary temple was free from any odor of **428** the grave. It was reminiscent of a pleasure garden for eternity. Everything was light and airy, right up to the topmost sanctuary fronted by the palisade of Osiris figures. How the terraces themselves were planted we do not know, but trees grew in parts of the courts and on either side of the temple ramp, and "to supply the green so dear to the Egyptian's heart, there were two shallow papyrus pools surrounded by little circular flower beds on either hand as one approached the ramp to the upper terraces" (Winlock, 1942, p. 90).

In relation to the grandeur of its dimensions, there is here a refinement of architectural detailing that recalls Zoser's temple complex at Saqqara. In contrast to the reliefs, which never lost their delicacy of touch, Egyptian architecture was destined to be drawn into a gigantism that became increasingly apparent in the hypostyles and courts of the later temples.

Neither the delicate orchestration of elements nor the embracing openness of the temple at Deir el Bahari had any continuation in Egypt. The intention here expressed was too early for its period, just as, in the earliest beginnings of architecture, an attempt at the development of interior space

was crushed by a dominant development of the external relations between objects. A similar freedom in the disposition of open colonnades and gardens only reappears in the Roman pleasure villas displayed on the frescoes of Pompeii. But again the impulse was short-lived. It rose again and finally came to full flower in the baroque period. Yet one must beware of imputing any identity of intention. To perceive a horizontal axis at Deir el Bahari and derive it from the temple of Karnak, as has been done, runs contrary to Egyptian mentality. A rational connection from point to point was far from their way of thinking. Even in Hatshepsut's temple the first court is surrounded by a high wall. Like all Egyptian architecture, Deir el Bahari is oriented vertically upward. What appear to us as horizontal planes are mere pauses on an eternally upward-moving path. This is expressed with great daring by embedding a finely articulated human ***262*** **col** structure within the immense verticality of this great rock amphitheater, which draws the eye up to its summits. No one in the baroque period would have been so intrepid as to confront his building directly with the wildness of nature. The existence of the baroque depended on the subordination of the environment to the horizontal axis: the plane was master.

518 ff A great human problem lies concealed in the architecture of Hatshepsut's temple: how to confront the unformed with the formed without allowing the formed to be reduced to insignificance.

PART XI SUPREMACY OF THE VERTICAL

THE VERTICAL AS DIRECTIVE

Our attitude to the vertical has become automatic and anchored in the unconscious. From a limitless range of directions and angles, one was chosen and became the standard to which all others must be compared and to which all must bear some relation.

Without thinking, we automatically organize the structure of a building, a sculpture, a relief, or a painting with reference to its relation to the vertical. It is unnecessary to stress that this is no more than a first approach to the phenomenon of art — no more than a starting point. Even so, it is its organizing principle. Styles are changing but the vertical remains.

It would be a worth-while piece of research to show how the supremacy of the vertical lost some of its hold in the painting of the nineteenth century. Paul Cézanne liked to paint houses whose walls lean aslant for no obvious reason. In his landscapes he often took pleasure in depicting trees whose trunks depart from the vertical; in many of his portraits the heads are noticeably tilted out of the perpendicular, and in his seated figures the right angle between trunk and thighs is enlarged so that the figures appear to slide off their seats — something his contemporaries could never accept.

More interesting, perhaps, would be a study of the role of the vertical in our own time. Even the optical revolution around 1910, which threw out so much when it denied the general validity of the laws of perspective (and with this the static viewpoint), held fast to the organizing principle of the vertical. The latter served, however, other purposes than before: it was partly instrumental in shaping a new space conception.

This is announced in the early cubist pictures of Picasso and Braque. They perforated horizontal perspective space by abolishing the organization of the picture in depth, tipping it into the vertical and removing it from the realm of direct optical grasp. This gave rise to a transparency and intangibility which announced a new space conception. That verticality provided the scaffolding for this new structuring of space is an indication of the many meanings the concept can have.

It is unnecessary to compare in detail a still life done in 1929 with a painting of an offering table of the Middle Kingdom. But they have one

important method **438** of presentation in common. An Egyptian “still life"—with its bread, fruit, and **439** meat provided for the dead — and a still life by Braque — with wine bottle, pipe, and guitar upon a café table — both negate perspective depth by tilting the horizontal plane into the vertical. In some respects the Egyptian painter employs this technique more radically than the painter of 1929, who wished to achieve another purpose, to represent hovering space.

Piet Mondrian always believed that his paintings, which had no relationship to actuality, were neutral forms — *formes neutres*. But in reality, the heavy black bands that held the subtle off-balance of colored squares and rectangles cried aloud their vertical-horizontal relation. His forms were only neutral in the sense that we accept the vertical-horizontal relation as so self-evident that it *is* “neutral.” Also, with Mondrian the organizing principle of the vertical served, in its own way, to build up the new space conception. He had strong theosophic interests and it may be that, unknown to him, cosmic symbolism mingled with his intentions, as it did in the strongly geometric works of the Egyptians.

In a way, the new space conception broke through under the shelter of the vertical, whose predominance as an organizing principle slowly dissolved. Kandinsky’s compositions bear witness to this. In his works just after 1910, with their completely free disposition of forms, the vertical-horizontal relation is merged into a multidirectional cosmos.

Besides art, modern science has also widened our horizon. We begin to sense the relativity of the vertical-horizontal, to realize that our relation to the vertical is not self-evident or the only possible way to portray order. It exists neither in the spatial multidirectionality of the cosmos nor in primeval art. It is a special case, like Euclidean geometry, which stands in very close relationship to it.

The selection of one dominant direction is foreign to both prehistoric and primitive man. Prehistoric man did not divide the world into components, though certain elements became prominent that were never renounced throughout primeval art: multisignificance and transparency, an absence of concern for past and future, and a freedom of disposition within a setting of apparent chaos.

Before the advent of recorded history, a far-reaching change occurred in the development of vision: instead of all directions being equal, the vertical became dominant. This was nothing less than an optical revolution.

Verticality as a co-ordinating principle is not confined to the early high civilizations. It had its roots in the antecedent neolithic world. Somehow this organizing principle must be tied up with the evolutionary process of the human spirit. It occurs over the whole world, even when no direct contact is traceable between different cultures. It is possible to detect two stages among extant primitive civilizations, or as one prefers to say today, “archaic” civilizations. Certain primitive peoples still hold to the prehistoric multidirectional lines and planes, and others accept the supremacy of the vertical. Among the first are the Australian aborigines, to some extent the Negroid peoples, and also the Eskimos. The art of the North American Indians, however, is organized upon a strongly marked vertical-horizontal basis.

TABLE OF OFFERINGS, *stele of Mentuweser: The horizontal plane of the table is tilted into the vertical. Abydos, Twelfth Dynasty*

The vertical is the line of movement.

Movement downward, movement upward. Directed downward: a lead plummet, the force of gravity, sunbeams. Directed upward: a connecting link with the cosmos. Forms which have come to express this are the pyramid, the ziggurat; monoliths in the form of a stele, an obelisk, a menhir.

The horizontal is the line of repose. It denotes the basis, the balance of scales in equilibrium. A horizontal position of rest was given to the Egyptian earth-god Geb, a vertical position to the air-god Shu, who

separated him from the sky-goddess **131** Nut. Vertical and horizontal belong together. One is the corollary of the other. They cannot be thought of independently.

GEORGES BRAQUE: *"The Round Table." The horizontal plane is tilted into the vertical. 1929*

THE VERTICAL AND MYTHOPOEIC THINKING

The origin of verticality is deeply anchored in mythopoeic thinking. It is the most obvious symbol pointing from earth to heaven — from earthly existence to the abode of the gods.

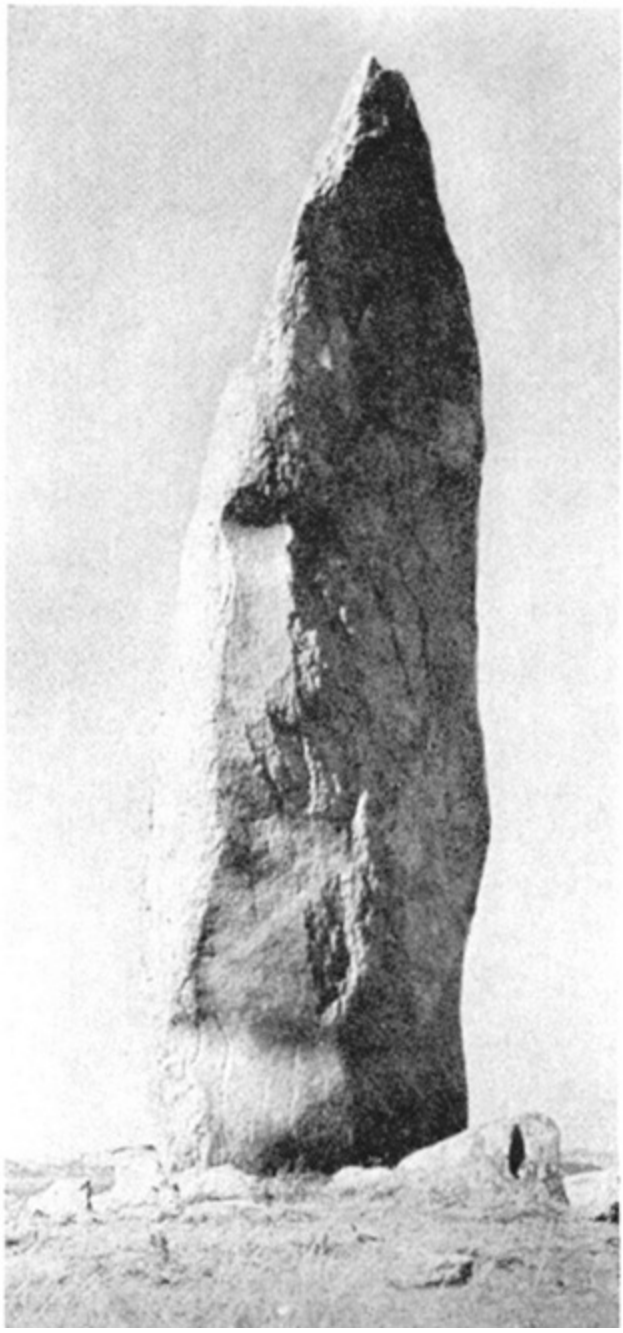
The forms taken by the vertical are very different. Their meaning is always a link with invisible powers, whether the godhead itself, the totem, or the ancestors "which are not annihilated by death but must be maintained and nourished. . . . Thus the spirits of the dead demand food and care . . . they demand a habitation of some material nature which can, as it were, take the place of the lost body. . . . From the primitive point of view, the gravestone was filled with strength ... as the abode of the procreating force of the ancestral spirits" (Kaschnitz-Weinberg, 1944, pp. 12-14).

The megalithic culture, which was related to the emergence of the vertical, covered no specific period of time. It was a stage of development with wide-spread ramifications in time as well as in space, that always had close sacred associations with stone monuments. It was distributed throughout almost the entire world. It is not certain how far back it reached or how many meanings were bound up with the standing stones. In Palestine, not far from where the river Jordan flows into the Dead Sea, perhaps the oldest steles have been found, as well as dolmens (table-like resting places for the dead placed upon vertical blocks). In Africa — Nubia, Ethiopia, Madagascar; in Indonesia; in the Middle East and the Far East; in South America, including Easter Island — everywhere the remains of megalithic culture can be found.

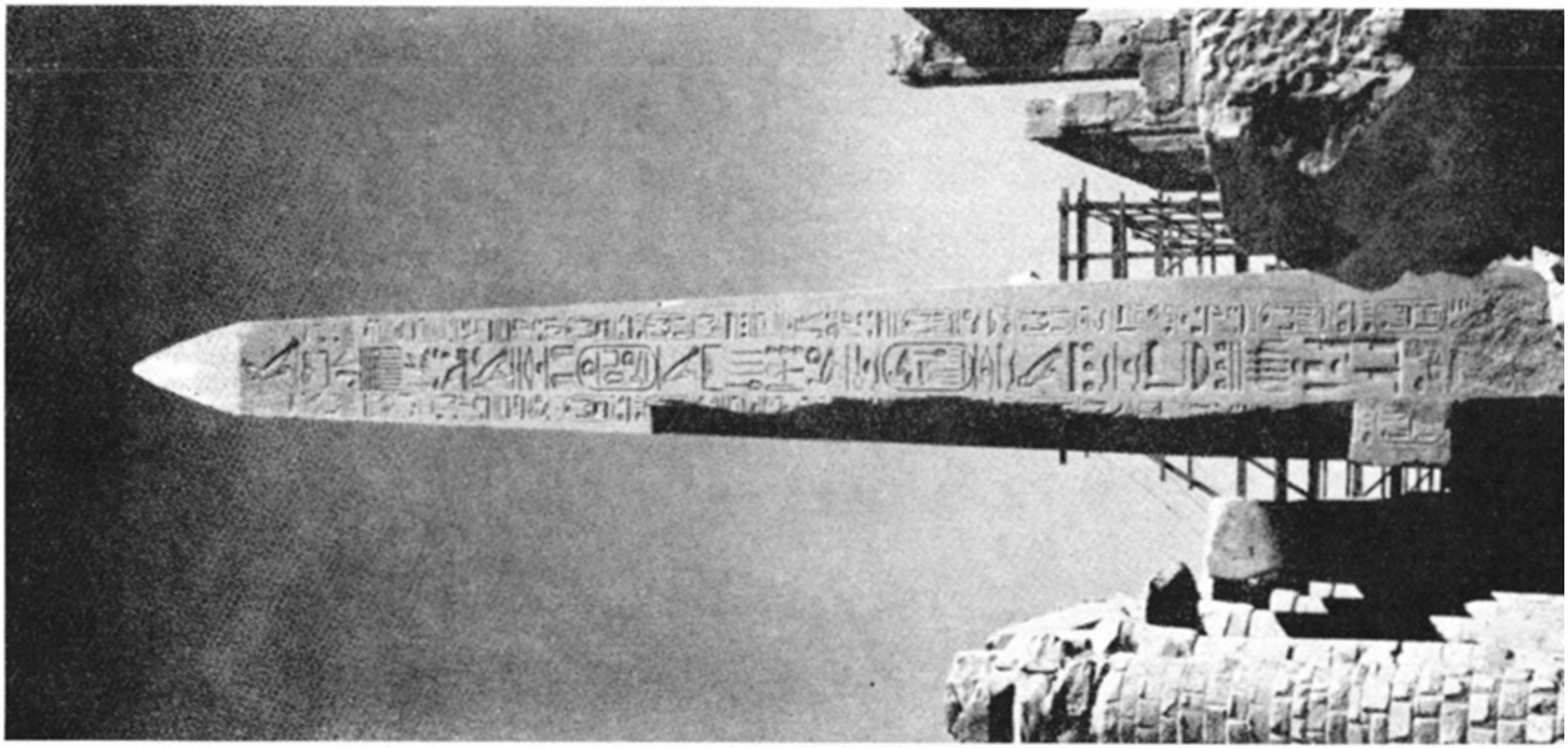
At the peak of the Fourth Dynasty, Egyptian architecture undoubtedly had a megalithic character — e.g., the square monolithic columns of the pyramid **255 col** temples at Giza, of which only Chephren's valley temple still transmits the original impression. Blocks used for the outer walls became more and more **311** bulky, as in the temple of the Sphinx (next to the Chephren temple), and in the mastaba, El Faroun, of Shepseskaf, last known king of the Fourth Dynasty, which lies between Saqqara and Dahshur. These gigantic blocks as well as, to some extent, the blocks and

casings of the Fourth Dynasty pyramids, have megalithic traits, but refined and polished as befits a highly differentiated civilization.

In Europe the best-known centers of the megalithic culture are Stonehenge and Brittany. Both are latecomers in comparison to the Near East, falling into the first half of the second millennium B.C. In Brittany the menhirs (Breton: *men* = stone, *hir* = tall) are as much as sixty-five feet high. These upright **441** monoliths taper toward the top and are more or less regularly quadrangular in section. It seems probable that in France and England they were connected with animal or human sacrifices as well as with fertility cults.



MANEUROCK MENHIR: *A rough stone needle tapers upward, rising to sixty-five feet. Quiberon (Brittany), latter part of second millennium* B.C.



OBELISK OF TUTHMOSIS I: *Obelisks stood in pairs before the pylons of the New Kingdom temples, except for Tuthmosis III's obelisk behind his festival hall*

Menhirs and obelisks are both products of a striving to express religious aspiration by means of a monolith. The Celtic menhirs were originated by barbarous tribes, the obelisks by a highly refined civilization

The custom of sacrifice and invocation, which in Indonesia is even today bound up with the erection of menhirs, is evidence of a strongly held belief that the stone is imbued with life.

Even now, Breton legends attribute to certain menhirs powers of growth, of wandering down to the stream, of giving forth sounds and mutterings. James Joyce, who felt the magic attraction of these monuments, made *Finnegans Wake* — that modern legend of humanity — open with a dialogue between two menhirs whom he named Mutt and Jute.

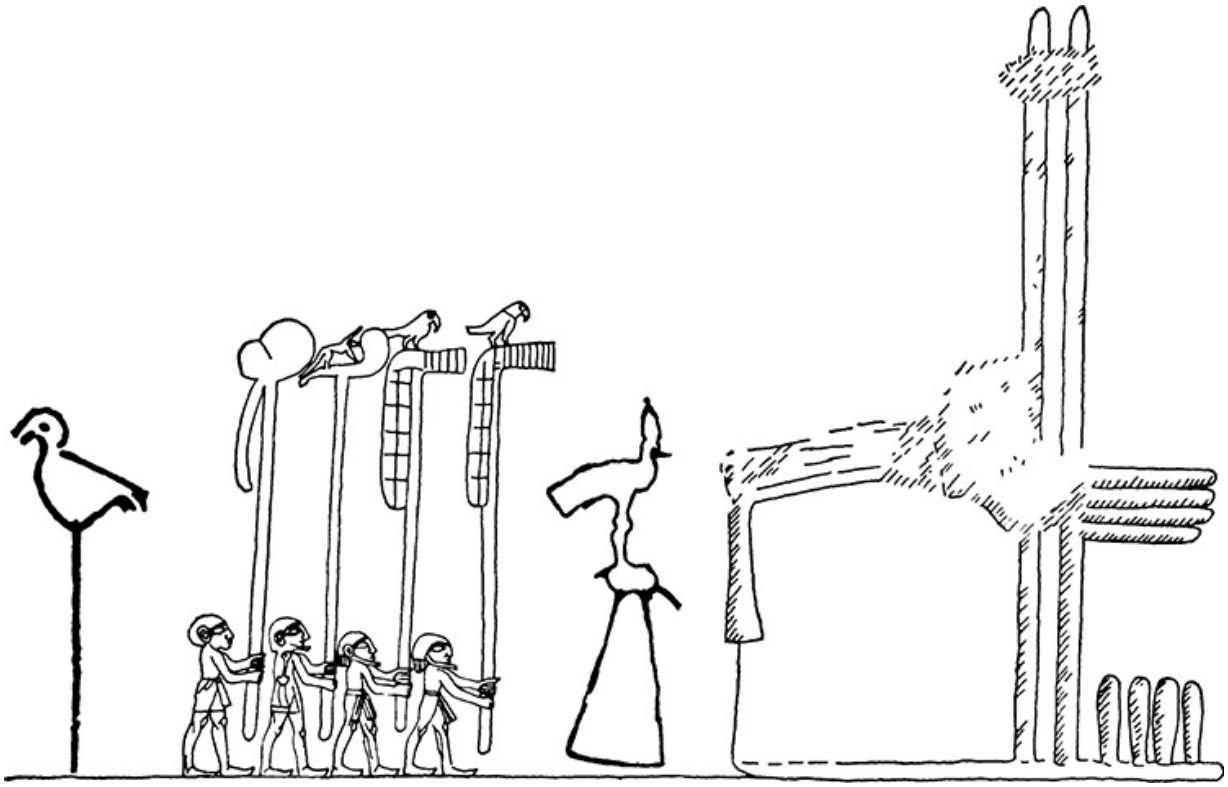
Coincidences seem to occur in modern art, popular creation, and slumbering prehistoric remembrances. One of the comic strips in American papers has long had two characters called Mutt and Jeff, one tall and one short, who are continually in difficulties. This was certainly known to Joyce, whose dialogue between these two giant stones, Mutt and Jute, is carried on in a kind of dream language, expressing ambiguous half-formed words and speech. It is more utterance than talking. Words have not yet become detached from the stone block, from the silence of nature. The dialogue begins (1939, p. 16):

"Jute. — Yutah!
Mutt. — Mukk's pleasurad.
Jute. — Are you jeff?
Mutt. — Somehards.
Jute.—But you are not jeffmute?
Mutt. — Noho. Only an utterer.
Jute. — Whoa? Whoat is the mutter with you?
Mutt. — I became a stun a stummer.
Jute. — What a hauhauhauhaudibble thing, to be cause! How, Mutt?"

Each utterance has associations and inner meanings, such as it might have possessed in the primeval ages and certainly had during the first high civilizations. Egypt, especially, liked to give many-sided significance to its signs — an inheritance from prehistory.

A single prehistoric example may be taken from the Magdalenian period to exhibit the bond between man and the invisible powers: a totem or a fetish on a **right** wooden pole — the bird on a stick from the cavern at Lascaux (Dordogne). It was painted in the most secret place in the cavern, probably the shrine of the cult, and was placed in a highly dramatic context. This is very rare. (The question of the relation between the man in a bird mask and the wounded bison has been discussed earlier.) Is the bird on the stick a totem or a clan symbol? **1:507 ff** Perhaps both. In any case it shows that the concept of a magical protector goes very far back in human consciousness.

During the course of millenniums, this concept engendered the emblems of the forty-two Egyptian provinces, or nomes. On the obverse side of the slate votive palette of Narmer, standards of Egyptian nomes are borne before the victorious **below** king upon long poles: two falcons (there were several falcon nomes), Upaout, the jackal, and one blown-up bladder which is thought to represent a placenta. As in the ships depicted upon Nagadah pottery, these standards sometimes hang downward like ribbons. Probably in the course of political development, the original fetish or totem of a clan was taken over by an entire province. However this may be, these animals, plants, and (to us) lifeless objects, persisted as the standards of the nomes from the protohistoric period until the end of Egypt’s existence as an independent state.



USES OF THE VERTICAL: *a*) *bird on a wooden pole, from the cavern of Lascaux, Magdalenian period; b) standard-bearers from the Narmer palette, with emblems of the provinces; c*) *phoenix (Benou) on the monolith (benben) which first emerged from chaos (fig. 220); d) two tall poles before a First Dynasty shrine (fig. 239)*

On the rock walls of the Wady Hammamat — the shortest route from Upper Egypt (Coptos) to the Red Sea — are late prehistoric engravings of strange spirit-boats with poles and emblems, some with arrowheads like those on Nagadah pottery (Winkler, 1937, fig. 2).

The image of a shrine of Neith, goddess of fertility and war, is preserved from the First Dynasty. Another shrine of the same period has two astonishingly tall **443** poles standing before the little building. Here, in its most primitive form, is the vertically expressed by the tremendous flag masts and obelisks which (in their **441** final monumental version) stand before the temple pylons of the New Kingdom.

With the onset of theological interpretation, vertical stones became the primeval hill which first arose from chaos and was identified with Atum, god of creation.

The obelisk was the final outcome of a process of increasing geometric abstraction. Its *Urbild,* in the form of a rough monolith, was found by

Moret engraved **344, 443** upon the shoulder of a kneeling Second Dynasty statue (1935-38, p. 624). Moret was well aware that this irregular monolith, topped by a flat stone, could not be identified with the final form of the obelisk, but he nevertheless believed the obelisk to be the culmination of this Heliopolitan baetyl “in its role as image of the sun" (p. 625). Its relations with the sun — its shape still **337** towerlike but now full size, in three dimensions — appear in the sun sanctuaries of the Fifth Dynasty.

In its final New Kingdom form of a slender stone needle, the obelisk was esteemed by later conquerors of Egypt (Persians, Romans, and on to Napoleon) as a rare and precious trophy. But when obelisks were re-erected in foreign lands they were used — like the horizontal axis — in a completely different way. **380** In Egypt, they stood directly in front of the monumental pylon walls. In Europe, they were placed isolated in space, as signposts marking the centers of important urban squares (the Lateran and the Piazza San Pietro in Rome, the Place de la Concorde in Paris), or the termini of long streets. No one used the device with more forceful effect than the great planner of baroque Rome, Pope Sixtus V, 1585-90 (Giedion, 1954, pp. 97-100).

The obelisk, with its extreme reduction of materiality, is the supreme manifestation of the vertical.

THE VERTICAL AS ORGANIZING PRINCIPLE

The supremacy of the vertical is by no means always connected with an emphasis upon or a striving after height. It is a universal organizing principle. Ever since the acknowledgment of its superiority over all other directions, it has reigned supreme throughout all periods up to the present day.

Styles change, the vertical remains. Nor is its function as an organizing principle limited to the field of art. From the beginning, it gave rise to combinations basic to the development of the science of geometry, from which arose the perception of the axis, symmetry, and the sequence.

Many religions show an obvious longing to express their relation to the cosmos, to the world beyond, by — if the phrase be permitted — an upward glance transmuted into stone. The form this desire assumes changes and develops, from a simple fetish on a pole, or a modest stele, to the elaborate structure of a pagoda, or the filigree of a Gothic spire.

This longing to soar upward is present in the pyramids. It is first expressed in the dramatic building-up of the entire complex of which the pyramids are the climax: valley temple, causeway, mortuary temple, pyramid. Yet the dimensions of the pyramids and the balanced association of their height with all other dimensions show that their striving after height is in equilibrium with the entire complex. This follows from the Egyptian desire for symmetry and harmony, which was sedulously maintained in every field of artistic endeavor.

The axis and symmetry

The axis is an imaginary line, to which all points upon a surface, a solid, or a space bear a certain relation, usually in the sense of a mirror reflection. In addition, a single solid or a system of solids can rotate about it (the world axis, wheel axles).

Primeval art knew of no axis. Eternally in movement like the wandering **1:514 ff** herds, primeval art is far removed from any stable and static order.

The axis, a line not tangible but only imagined, came into being because of a need to establish relationships. But not universal relationships — only the interdependence of all parts within a system through their relation to a center line. The place of the axis in science, in organic and inorganic morphology, or in astronomical relations, is outside our field. Here we touch only upon its role in the development of art.

Symmetry is bound up with axiality; one is not conceivable without the other. **right** Two figures are symmetrically in relation to a central axis when point by point they are organized in relation to it, and when the lines linking corresponding points stand at right angles to it.

A form is symmetrical when its two halves, right and left of the axis, would cover one another if folded together. This is called bilateral symmetry. Each half is the mirror of the other. The mirror image hesitatingly started to become an essential law of sculpture and architecture at the dawn of history. It began with the first monumental buildings and acquired a powerful orchestral fullness upon the front elevations of the temples of the New Kingdom, with their tall **375, 380** pylons, flag masts, obelisks, and colossal seated statues of the rulers. All those parts were arranged in pairs in mutual reflection, while the high door in the center brought out and emphasized the axis.

Today, science has given wider scope to the notion of symmetry than ever before. It is applied as a classifying principle to the world of phenomena. A crystallographer has described symmetry as "the regulator of knowledge. By this we mean that man recognizes and perceives the world through the clue of symmetry" (Engelhardt, 1949, p. 210).

In mathematics, in botany, in zoology, in crystallography, in atomic structure — thus both in organic and inorganic fields — symmetry is accepted as an organizing principle. Physical chemists have distinguished fourteen different types of symmetry, mathematicians even more. The strength of scientific interest in the subject may be seen in the series of articles in *Studium Generale* (1949, pp. 203-78), wherein well-known scholars describe the role of symmetry in their respective fields of knowledge.

Mathematicians have made the strongest use of the concept of symmetry, since they have studied that wide area of "groupings" that are a kind of mathematical symmetry, as Andreas Speiser proved (1927, pp. 10-12). Understandably, ornamental motifs provided almost the only object of

precise investigation that art had to offer to mathematicians. Speiser limited ornament to seven categories of band patterns supposedly comprising all the possibilities; however, periods such as the late Gothic and the rococo slipped through his fingers.

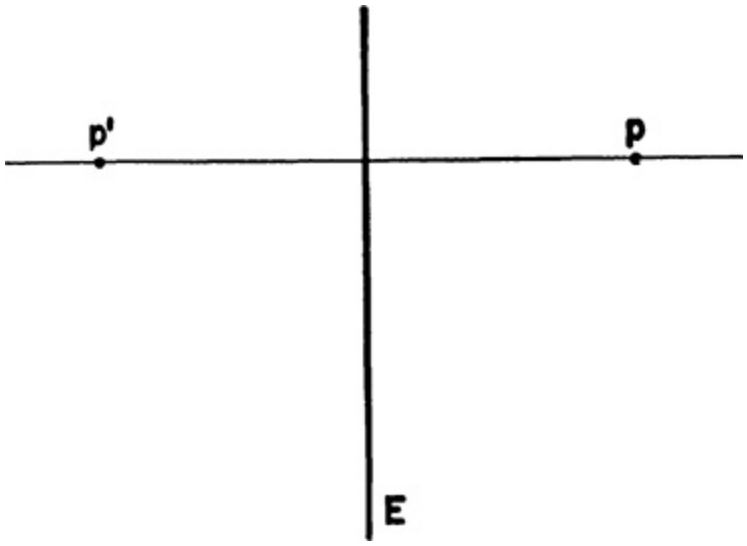
The most universal concept of symmetry was expressed by the mathematician Hermann Weyl in his Princeton lectures (1952). He did not merely chase after ornamentation; he also attempted to enter upon the domain of art in general. One can sense how hard it was to express this mathematically. Weyl was also careful not to go into the filigreelike classification so beloved of present-day investigators of symmetry. He kept to the three major categories of symmetry that were already known, but he gave them a more profound meaning.

Bilateral symmetry is the form most interesting to the mathematician. Weyl traces "the strict bilateral or heraldic symmetry" from Sumer to the Greek and Christian periods (pp. 5-24). This mirror-image symmetry was the latest form to be developed and was relatively seldom used in the early high civilizations. Yet it has become in our minds almost identical with the whole concept of symmetry.

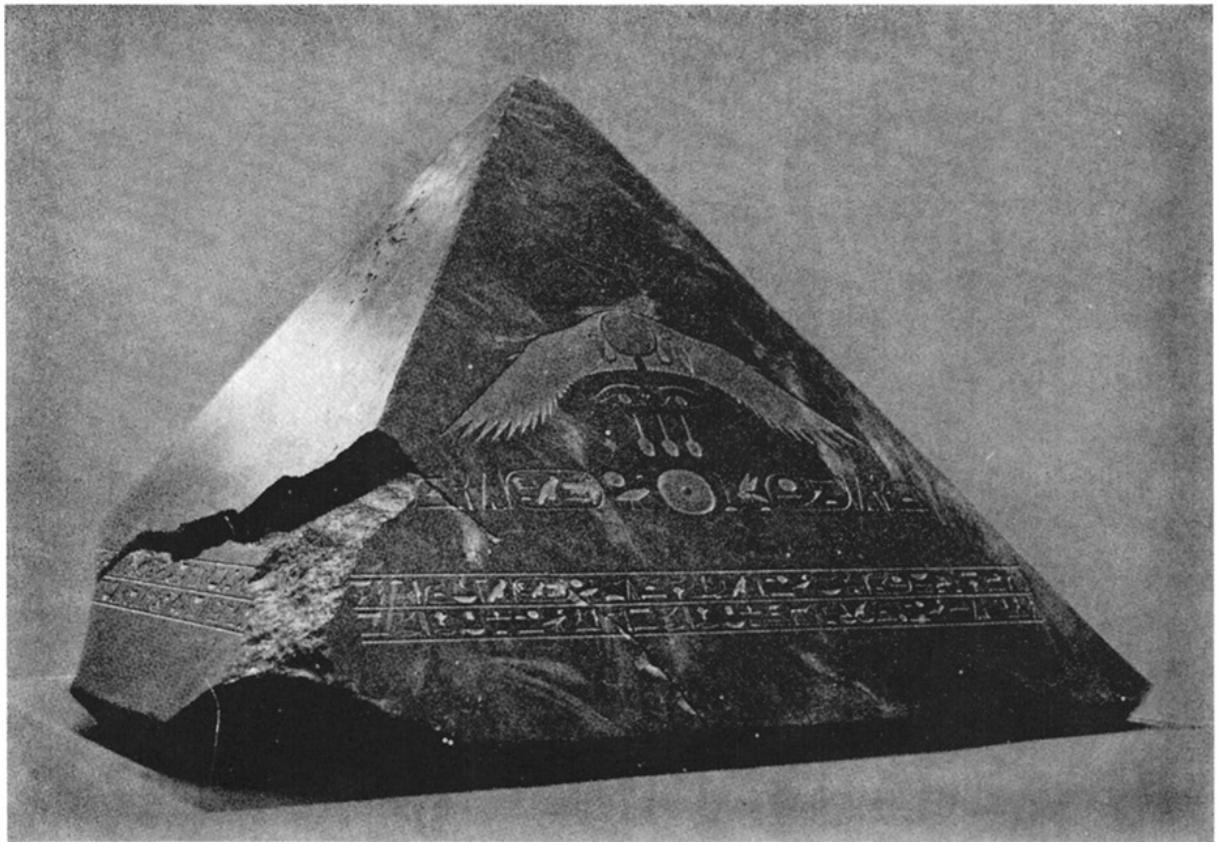
Translatory or shifting symmetry results from a rhythmic repetition of forms, and is by far the oldest type; we shall show that it goes back to prehistory. It arises from the horizontal shifting of a given form, as in linear ornamentation, when the motif repeats again and again. For present purposes it seems better to use the term "sequence." This is the most important means of compositional order.

Rotational symmetry comes about when a motif turns through a certain angle before repeating itself: 60, 90, 180 degrees. It too appeared earlier than bilateral symmetry, though its use is more limited. It was used most effectively on the ceramics of the fourth millennium, a period of transition from prehistory to history.

From the very beginning, Weyl recognized the nature of symmetry as a balancing relationship. "*Ebenmass* is a good German equivalent for the Greek symmetry; for like this it carries also the connotation of 'middle measure'. . . . The image of the balance provides a natural link to the second sense in which the word symmetry is used in modern times: *bilateral symmetry,* the symmetry of left and right, which is . . . a strictly geometric and, in contrast to the vague notion of symmetry discussed before, an absolutely precise concept" (pp. 3-4).



AXIAL OR BILATERAL SYMMETRY *arises from the use of the vertical as an organizing principle. Every object has a mirror reflection on either side of an imaginary axis. "Reflection in E [the axis] is that mapping of space upon itself, S:p* $\rightarrow p^1$*, that carries the arbitrary point p into this its mirror image* p^1 *with respect to E" (Weyl, 1952, pp. 4-5)*



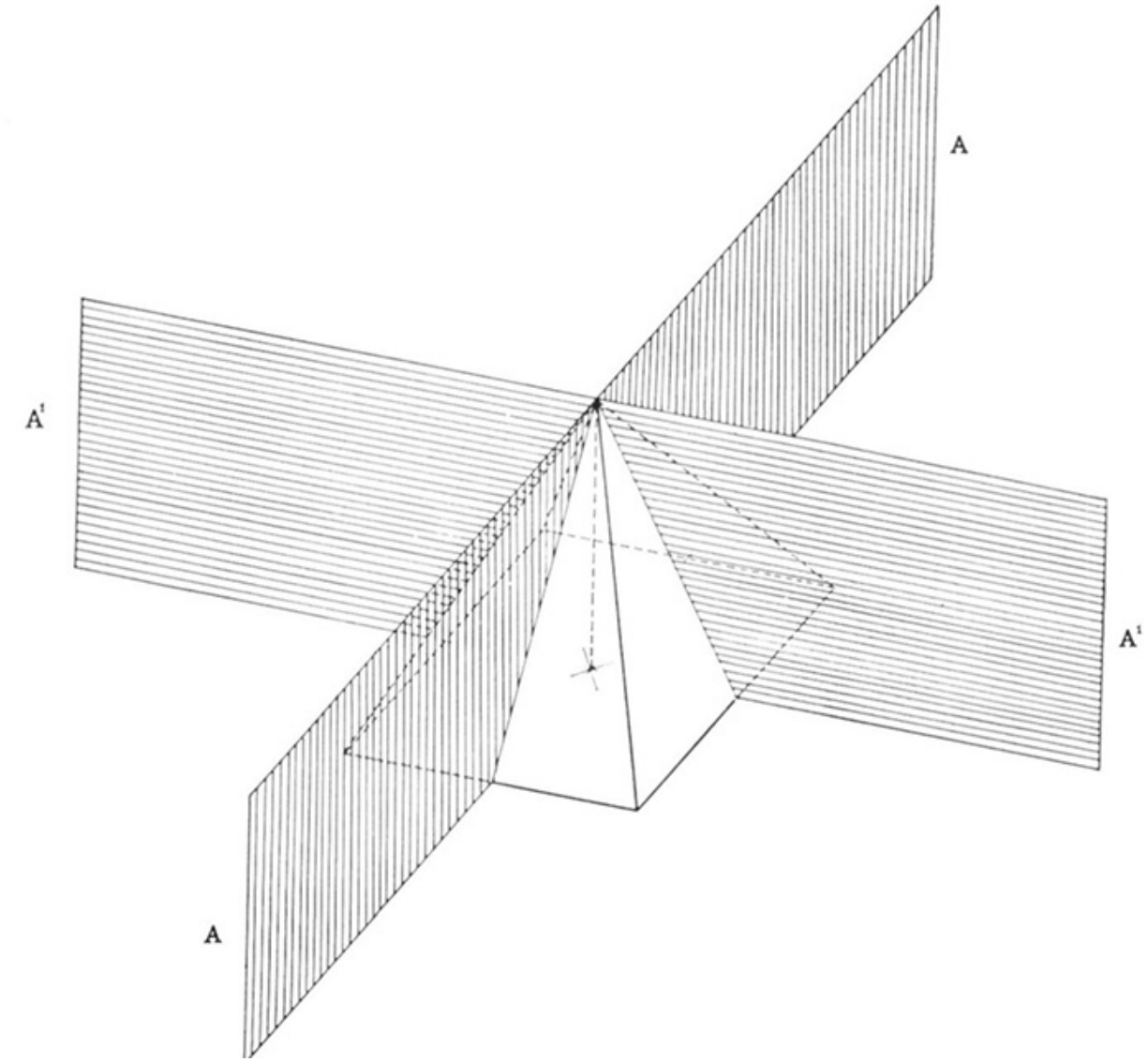
PYRAMIDION OF AMENEMHAT III: *The material of this pyramidion, indestructible gray basalt, emphasizes eternity. All lines and surfaces eternally ascend to a single point. From the site of Amenemhat's pyramid at Dahshur, Middle Kingdom*

Axis and symmetry in architecture

With the coming of architecture — volumes shaped by the human hand — the vertical axis made its appearance and at once became the unrivaled organizing principle. The grandeur and purity with which it was expressed in the pyramids was never attained in later periods.

Intangible but almighty, the vertical axis mounts from the center of the square at the base to the peak. The pyramid, simultaneously "tomb of the king and temple of the great god" (Spiegel, 1953, p. 285, par. 425), is the place **89 ff** in which the god, the king, and the Ka — that curious and ambivalent conception — merge into one another. It is the beginning of the ladder to heaven up which the god-king ascends. At the pyramidion, the peak of the pyramid, all lines and all surfaces converge at a single point, rushing toward it without pause, without deviation, from their onset. Here

they become one with the vertical axis, whose height gives the key to the inner relations of the pyramid structure.



PYRAMID AND MEDIAN PLANES: *The axis of a pyramid can be extended to form median planes cut through its apex. One pair of such planes can be cut diagonally through the corners. Another pair (AA-A^1A^1) is cut at right angles to the base, on the direct east-west and north-south orientation of the pyramid*

Of more than eighty pyramids, only one peak with an inscription is preserved: the pyramidion of King Amenemhat III, which was found lying on the **left** east side of his pyramid at Dahshur. It is fashioned of "indestructible basalt" (Schäfer, 1904, p. 84); each side of its base measures 1.85 meters and its height is 1.40 meters. It crowned a pyramid clad with

limestone over an inner core of brick. We are here at the waning of the Middle Kingdom (ca. 1800 B.C.), at the end of the age of pyramid building. The subtle treatment of the relief of the beautiful winged solar disk on this dark granite peak is reminiscent of the high artistic level of Middle Kingdom jewelry. The inscription on the eastern face reads: “Opened is the face of the King Amenemhat, he sees the ‘Lord of the horizon' (the sun-god) as he traverses the heavens" (ibid.).

This indestructible monument was no more intended for the eyes of mortals than were the statues of the gods in the darkness of the cella. No one upon the ground could possibly read this small inscription. Here began contact with eternity: converse with God.

How hesitantly axial symmetry came into use at the beginning of the Third Dynasty can be seen in the powerful complex of Zoser at Saqqara. Its only **274** entrance is placed, completely asymmetrically, at the southeast end of a 550-meter boundary wall. This small entrance leads directly through a covered **250 col** colonnade to the great inner court, which extends laterally from it, and then **251 col** on to the step pyramid, which again is placed to the side and not upon the axis of the entire complex. This connection of strongly vertical and rectangular structures with asymmetrical harmony can be followed even in details.

In the Fourth Dynasty, the axis appeared in its full determination in the pyramid temples. In no other remaining monument does this appear with such force as in the ground plan of the valley temple of Chephren. A masterpiece of the dominating system of symmetry around a central axis is there unfolded. **325** The separated entrances for Upper and Lower Egypt are placed symmetrically about this axis and, following the leitmotiv of the double entrance, smaller and larger passages are developed symmetrically and in solemn orchestration build up the new concept of axiality.

The axis and symmetry had already appeared as the leading principle of the **Part v** earliest monumental architecture: the Sumerian temple. It seems to have been far more difficult to organize an entire complex upon a rigid horizontal axis; this was apparently contrary to the inner orientation of the early civilizations. In most cases it was avoided: Chephren’s valley temple, for example, led sideways into the causeway, and this dark covered passage terminated sideways and slantwise at his mortuary temple immediately in front of the pyramid.

When Ramesses II completed Amenhotep III's temple at Luxor, fronting the large new extensions with his great pylon, he did not rationally continue the **393** horizontal axis established by his forebears. His new axis followed more subtle considerations.

During the New Kingdom, alleys of sphinxes lined the sacred ways leading from one sanctuary to another (Karnak to Luxor, Karnak to the temple of Mut) **before 355** as well as the processional way from Karnak to the Nile landing for the sacred barge. But the horizontal axis was not then used in the manner that has become second nature to us since the baroque period — the manner expressed in the gardens of Versailles, where the horizontality of the infinite terrestrial vistas symbolizes the monarch's hold over the country.

The horizontal axis of Hatshepsut's mortuary temple — the most felicitous axial development of Egypt — indicates the upward path of the processional way enveloped within the rock cliffs of the Libyan desert. Its orientation was not **262 col** terrestrial but toward a cosmic infinity.

The median plane

The axis can also be developed into an axial plane that takes the form of an automorph (mirror image) divided into two identical halves. This form of plane is known as a median plane.

One can determine four median planes cutting through the apex of a pyramid. **449** They appear upon the square of the base as an axial cross. One pair of these planes cuts through the four corners of the pyramid; the other (AA-A^1A^1) stands at right angles to the sides of the base. This axial cross is very important in the orientation and meaning of the pyramid. It expresses the cardinal directions — north, south, east, west — upon which the pyramid was oriented. The north-south direction was exactly fixed — within minutes of a degree.

The view to the east — to the sun and the fruitful land of the Nile — meant, at the same time, life. The Sphinx also looks toward the east —to the rising of **72** the sun. The word "west" at once brought to an Egyptian mind the kingdom of night and of the dead. Westward stretched the desert and the city of the dead in the shadow of the pyramid, with the mastabas of the nobility: certainly one of the earliest examples of gridiron town planning. This appears in the lovely colored lithographs of Lepsius' monumental

volumes (1849-59) perhaps even **505** more strikingly than in Reisner's photograph taken from the Chephren pyramid. The whole tremendous expanse is here encompassed: to the east of Cheops' great pyramid the ribbon of fertile land along the Nile, westward the city of the dead, and the immense desert within which all is embedded.

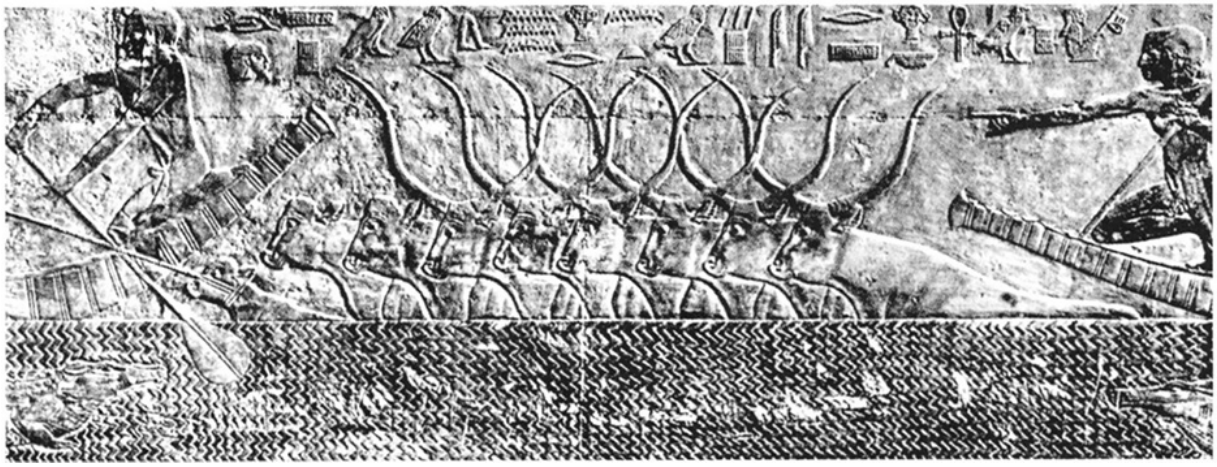
PREHISTORIC SEQUENCE OF STAGS: *The antlered stags grow out from the rock face and are not, as has been supposed, swimming through a river. Prehistory never depicted environment. Lascaux, Magdalenian period*

SEQUENCE AND THE VERTICAL

A sequence is a succession of identical or similar elements along a horizontal plane or line. The mathematicians, as we saw, consider the sequence a kind of **467** symmetry: translatory symmetry. Translatory or shifting symmetry, which can be continued endlessly, is, in the artistic sense, scarcely acceptable as symmetry. Impulses of time and rhythm enter, and it is better in this case to talk of sequences: for instance, from the artistic point of view, it is better to interpret the repeating columns of the Doge's palace in Venice — one of Weyl's examples of translatory symmetry — as a sequence.

It is not rewarding to consider sequence as a kind of symmetry in art. The essence of a translatory sequence, in contrast to bilateral symmetry, lies in its progression. It can continue without limit. It involves the factor of time. The effort of the mathematician to discover the lawful limitations of art is confined to the structure of ornamental patterning. But the sequence, as it appears in Egyptian or Sumerian reliefs, neither desired nor permitted the repetition of absolutely identical forms. As soon as we enter the wider field of art, the mathematical theory of groupings becomes too narrow. The mathematical definition of a sequence as a band or a part of a plane between two parallel lines can be used in connection with the art of the high civilizations. But it is too restricted for primeval art, where no parallel lines or plane surfaces exist. Yet the sequence was present from the beginnings of art: it is far older than symmetry.

PREHISTORIC BONE ENGRAVING OF HORSES' HEADS: *The repetition in sequence served to strengthen a spell. Magdalenian period*



EGYPTIAN SEQUENCE OF CATTLE *being driven across a river. Up to the end of the first high civilizations the dynamic, movement-suggesting symmetry of sequence prevailed over static axial symmetry. Tomb of Ti, Saqqara, Fifth Dynasty*

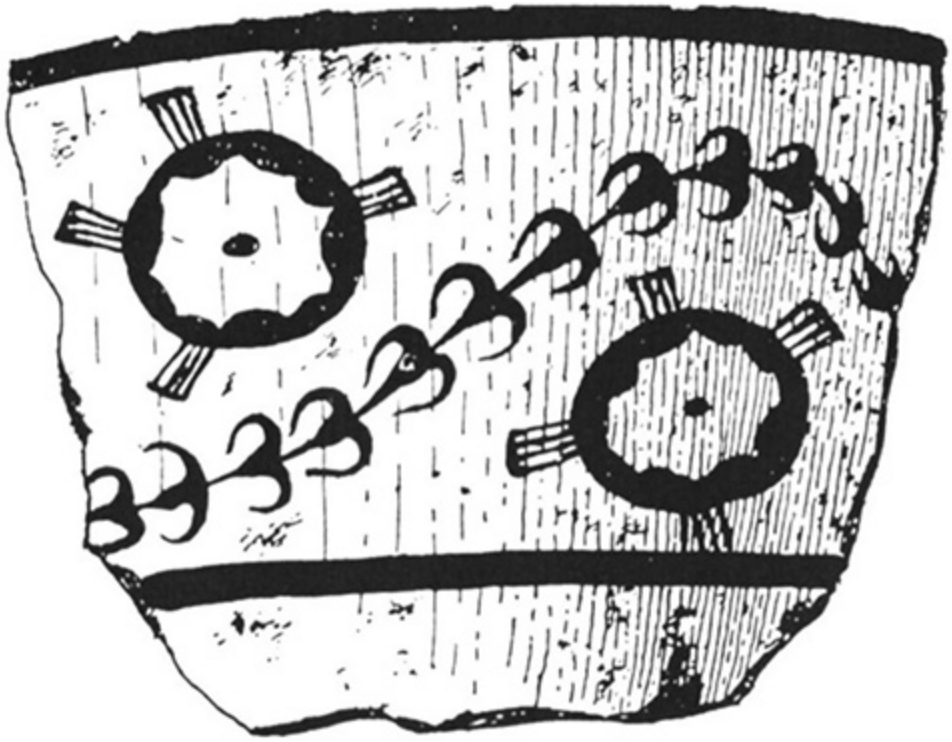
Repetition, the essence of sequential succession, was employed in art of the Magdalenian period. One of many examples is a bone engraving showing a sequence of horses' heads. The repetition here was to give added force to the **left** conjuration. Another example is a beautifully drawn frieze of stags, one behind **left** the other, from the cavern of Lascaux. The frequent explanation that these stags are crossing a stream fits perfectly a Fifth Dynasty relief of cows in the tomb of **above** Ti at Saqqara, but is rather strange for prehistory.

Pottery and sequence

Sequence, in the strict mathematical sense, could only develop after the vertical and horizontal had become accepted as an organizing principle.

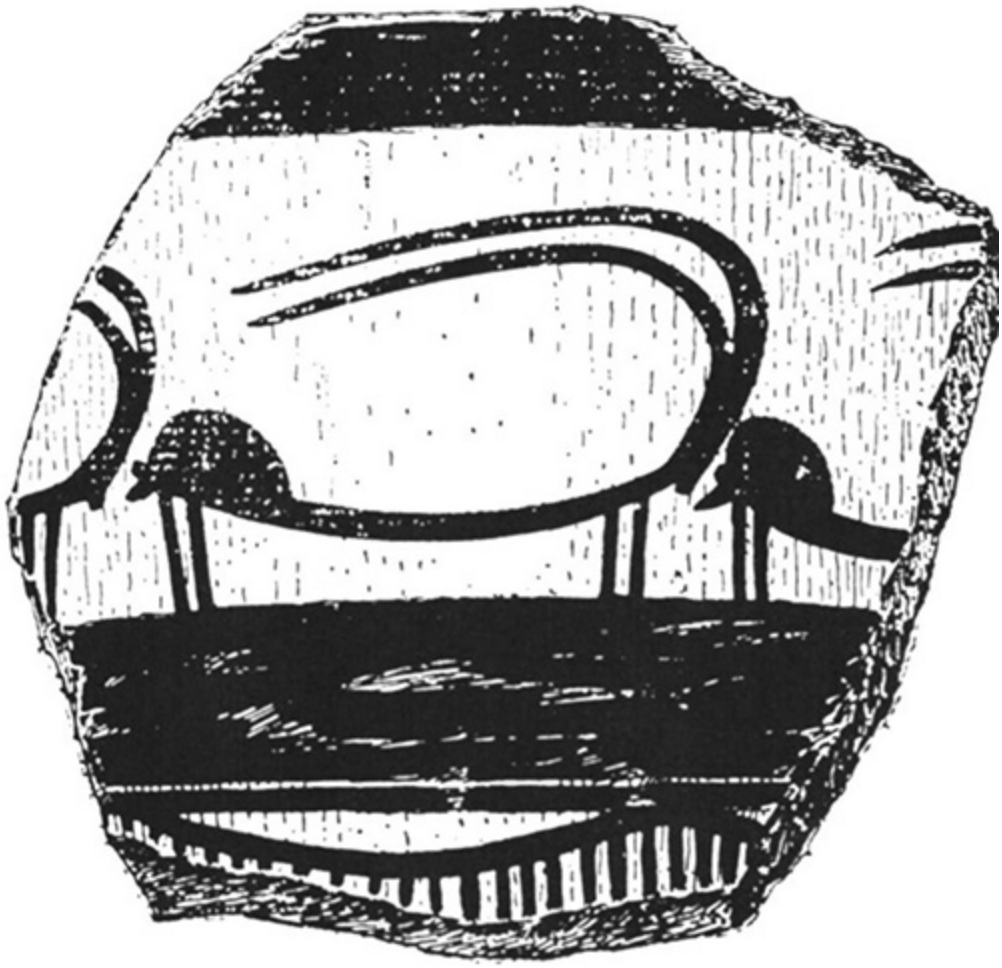
A horizontal base line is closely related to the development of painted pottery. Detailed research into the use of the sequence and primitive symmetry should yield interesting insights. Only a few hints are offered here.

The shapes of the first handmade — later wheel-formed — pots, beakers, plates, storage jars, funeral urns, etc. were naturally bilaterally symmetrical. As the potter's wheel came into use and the vessel rotated before the eyes of its maker, the fingers would almost be impelled to impress parallel bands or wavy lines upon the emerging vessel. But it was not quite so simple as that. Presiding over the decoration of these vessels stood a symbolic meaning of forms, which is for the most part lost to us.



DIAGONAL SEQUENCE OF BULLS' HEADS: *Painted in black on greenish pottery vessel. The curving sequence still floats in space, but the horizontal limits are already well marked. Two large suns accompany the undulating chain. From Tepe Kazineh (just south of Tepe Musyan, Iran), fourth millennium. From Gautier and Lampre*

SLENDER BEAKER FROM SUSA: *Strongly accentuated horizontal bands separate different areas, as on the later Uruk vase (fig. 64). The center is reserved for the abstract representation of an ibex with immense horns and an hourglass body. Other smaller animals, also referring to resurrection, race round the vessel in sequential order. Susa, style I, fourth millennium*

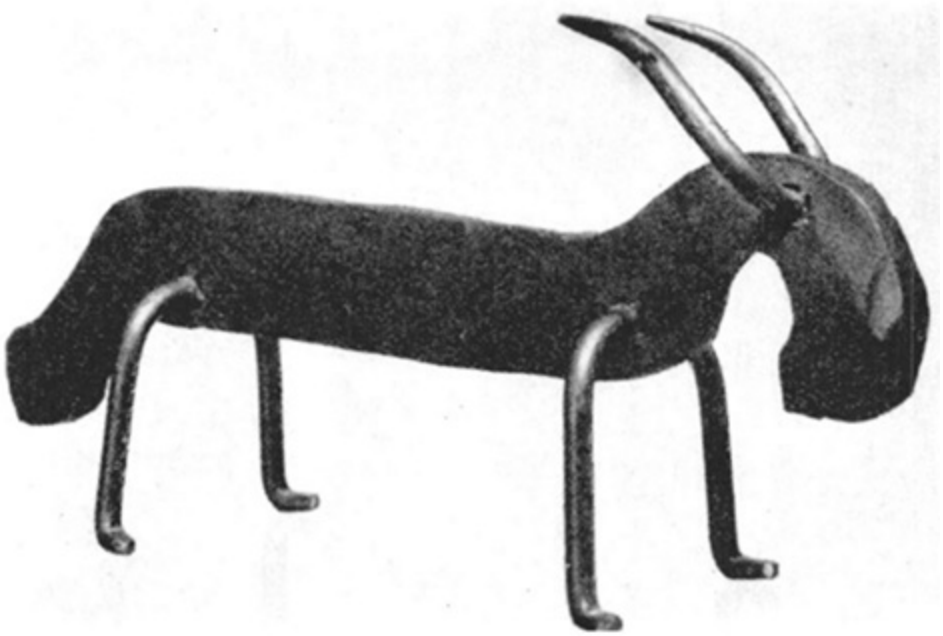


IBEX ON FRAGMENT OF YELLOW POTTERY: *Black-painted figures with greatly elongated bodies drawn in a single stroke, short legs, and gigantic, backward-curving horns. Tepe Kazineh. From Gautier and Lampre*

Decoration on early pottery is either longitudinal in direction or is freely disposed on the surface. In Hassuna, one of the earliest villages of northern Mesopotamia, tall jars were found with incised (not painted) triangles placed vertically or at random.

In Part V, when speaking of the relations between architecture, pottery, and abstraction, we referred to a black beaker of around 3500 B.C. from Tepe **200** Gawra, stratum XIII, not far from that jewel of earliest architecture, the northern temple, and concluded that abstraction was the common root of architecture and pottery. The same vessel may be instanced here with reference to its rhythmic division by repeated groups of vertical lines.

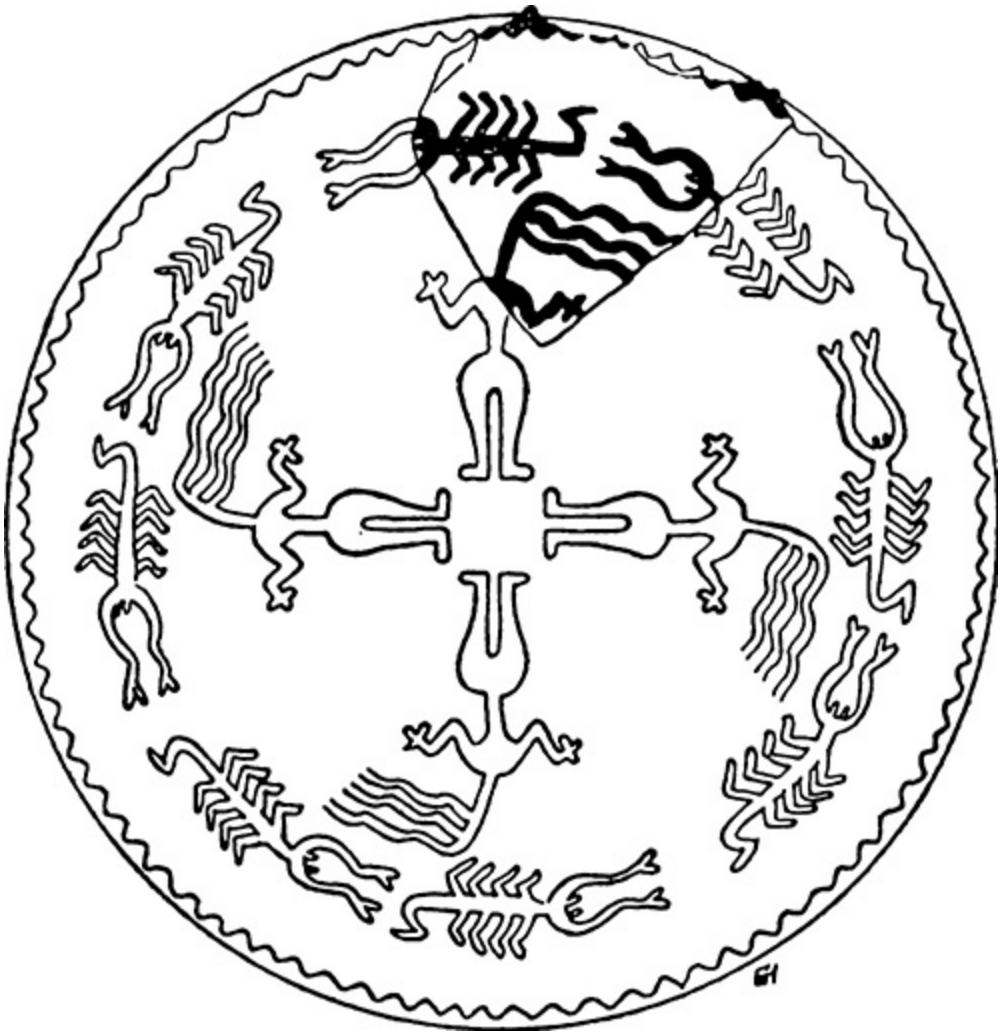
This early vertical organization of the surface was increasingly superseded by horizontal sequences between broad horizontal bars, as in the pottery from Iran (e.g., Sialk) or northern Mesopotamia (e.g., Nineveh). The perfection of the handmade pots found in the primitive round stone huts of the fifth or early fourth millennium (as at Arpachiyah in northern Mesopotamia) is astounding. Their abstract ornamentation ran in circular bands — checkered patterns, sequences of triangles, wavy lines, dots, etc.— around the vessels and around the inner sides of the bowls. All was now submitted to the discipline of strongly marked and separated horizontal base lines. In one region, which stretches from the Iranian plateau, near the Caspian Sea, to Mesopotamia, there was an influx of artistic intensity during the fourth millennium. It is evidenced by a new material, a new technique, and a new shaping of forms. Pottery bowls, beakers, and jars of great variety and excellence appeared, apparently out of nothingness.



FLAT WROUGHT-IRON BULL: *These long-bodied, short-legged bulls, with exaggerated horns and heads bent low to protect the home against evil spirits, are still placed above the hearths in villages of the Upper Engadine valley (Switzerland*)

In the pottery of the early fourth millennium, still within the prehistoric period, the desire for sequence was marvelously interwoven with a restless urge for movement. Naturalistic and abstract symbolic forms of enigmatic significance were represented simultaneously.

From the primitive scratching technique of the Hassuna vessels it is a great **454** leap to the painted shards found at such remote places as Tepe Musyan, about 150 kilometers west of Susa. In the eighth volume of J. de Morgan's *Mémoires de la délégation en Perse* (Gautier and Lampre, 1.905, pp. 59-148), an excellent description of this little-known development can be found. Here is a rare instance of the sudden display of a new richness. A lively fantasy, never cramped by schematization, has enabled us to see into the stages of an unfolding repertory of abstract representations: stars, plants, gazelles, ibexes, birds, even insects, are shown in forms naturalistic to abstract. Ibexes and goats appear with long-drawn-out bodies and gigantic horns. "The body is drawn in one long **454** curved line . . . the horns, back-curving, extend over the whole length of the subject, which is short-legged and entirely without grace" (p. 123), as the excavators remark.



ROTATIONAL SYMMETRY ON A SAMARRAN PLATE: *Women with flying hair and scorpions whirl in frenzied rotational symmetry, but still maintain the freedom and the hovering space of primeval times. Fourth millennium. Drawing after Braidwood, et al.*

HORNS ARISING FROM A BLACK CIRCLE: *No bodies. The vigorously drawn horns occupy the outer surface of this breast-shaped bowl, so that the whole area is concentrated on bringing new life and strength to the dead. Iran, fourth millennium*

This abundance of forms is organized in a great variety of sequences drawn, sometimes rectangularly, sometimes diagonally, in a chain across the surface. If we take the pottery of Hassuna and Tepe Musyan to be rough (almost "peasant") work, it would appear that places like Samarra and Susa had already acquired excellence of draftsmanship and a decisive approach to the horizontal-vertical problems of the sequence.

An audaciously slender vessel makes its first appearance. The famous Susa **454** beaker in the Louvre (Susa I style) is fraught with a striving after

height. It displays an early use of precisely separated bands. A heavy base line is surmounted by the main area with its monumentally abstract version of an ibex with large horns. This animal is framed by strong double lines which use the old motif of lengthwise decoration. Above it, again between horizontal lines, are dogs (?) whose bodies are stretched out in full flight. They are said to represent hunting dogs, but this appears doubtful. Finally, above this, and again separated by horizontal lines, is a sequence of abstract birds, whose necks are pulled out vertically as much as the bodies of the "dogs" are horizontally.

The center of this beaker is certainly the ibex within its strong frame, yet the vessel demonstrates that the whole striving for movement of primeval times is still alive. See how the ibex moves to the left, the "dogs" to the right, and the birds again to the left. Like a fluid melee of different ingredients glimpsed separately for an instant before they flow into one another, past and future formations can be sensed in this slender beaker without in any way reducing its own artistic strength.

SEQUENCE OF IBEXES AND SCORPIONS: *The ibexes (or goats) have abstract bodies and over-sized horns. The upside-down mirror juxtaposition is a heritage of prehistoric methods of representation. Impression from an Early Dynastic cylinder seal*

There is, of course, no direct relation between these Iranian ceramics and a flat, hammered-iron bull, with head bent low for defense against evil spirits, **455** which is still placed above the hearth in villages of the Upper Engadine valley (Switzerland). Its long-stretched body and shortened legs are among the survivals that linger on in the human mind.

On prehistoric plates from Samarra (Herzfeld, 1930, pp. 11-22) figures and **456** animals were flung into a whirling frenzy: women with flying hair, scorpions with their tails swung back, all as if caught in the centrifugal motion of the potter's wheel.

Sequence? No horizontal base lines confine these eight scorpions and four women. They still carry with them the freedom of direction of primeval times and also its hovering space. But their centrifugal organization contains the seed of the sequence and of rotational symmetry.

The whole outer surface of a fourth-millennium breast-shaped bowl is fully **457** occupied by three pairs of vigorously designed horns that spring like plants from a dark disk instead of a body. Their rotational symmetry induces a forceful motion, symbolizing the life and strength they give to the dead. Between them are enigmatic abstract signs, probably frogs, symbols of newly awakened life.

Cylinder seals and sequence

The smallness of the available surface of a seal and the brittleness of the materials employed — quartz, malachite, crystal — induced a kind of artistic short-hand. The Mesopotamian development remained until the end under the spell of the cylinder seal. Its invention came about before that of script and was related to the invention of the wheel: the potter's wheel and the wagon wheel. All were based on the transformation of discontinuous steps into a continuous revolving motion. André Breton, the surrealist poet, regarded this revolutionary change from the additive movements of walking to an endless rotation as mankind's most important invention.

The cylinder seal was rolled along upon a surface of moist clay. Its impressions could be mechanically reproduced again and again at will, and etched upon the memory by repetition.

The impressions of a cylinder seal fit the definition of a sequence as a repetitive pattern between two parallel lines. Its composition first consisted of a simple repetition of single objects, as shown in our example from the Early Dy- **left** nastic period. But with the advent of mythology, scenes came to be depicted, such as the frequently reproduced fight of a hero with two attacking beasts. In **65** this scene the hero forms a vertical axis, with the two animals symmetrically disposed to right and left springing up to create a triangular composition.

Within a few centuries the seal had developed from a primitive impression denoting ownership of a jar of wine or oil to the finest achievement of Sumerian art and, later, of the art of Akkad, Babylonia, and Assyria. The manifold scenes depicted on the seals of different periods afford the best insight into the religious and ritual background of Mesopotamia. The use of the cylinder seal spread throughout the then known world: to Egypt, Asia Minor, Crete, Greece. It persisted through all

the fateful changes in this area: through the Sumerian and Akkadian regimes, and the dynasties of Babylon and Assyria, almost until Alexander the Great brought this greatest Oriental empire to an end. But the importance and artistic refinement of the cylinder seal in Sumer and Babylon were never matched.

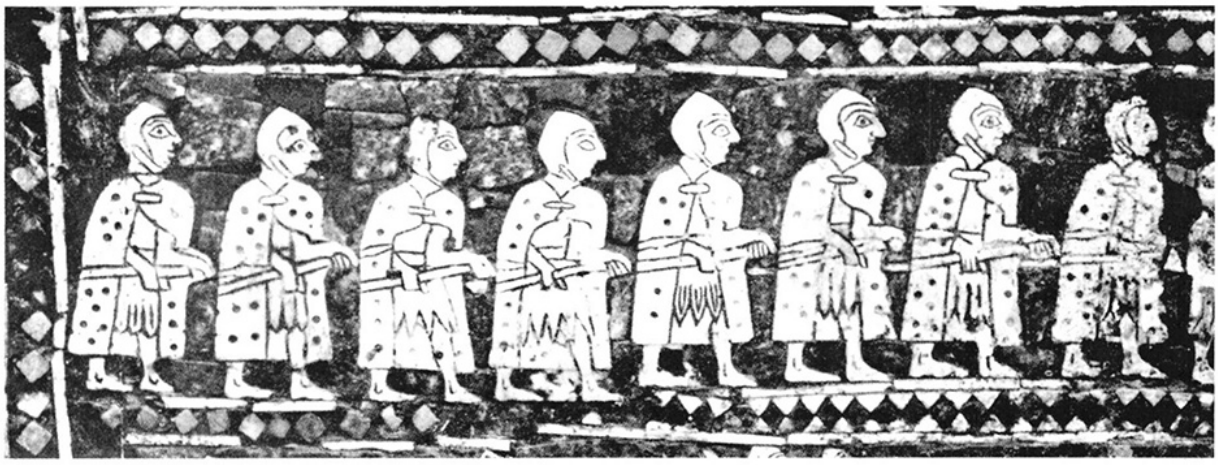
Sequences of human figures

The representation of human figures never played a major role in prehistory, yet rough sequences of human beings can be found on Magdalenian bone engravings, **32** such as that showing the ritual burial of a bison.

In Mesopotamia, sequential compositions of human figures occur in almost all **121** periods. An alabaster vase from Uruk, three feet tall, displays the monumental use of the sequence at the beginning of the third millennium. Here the sequence **119** dramatizes the festival of Inanna. As we recounted earlier, four bands of increasing size correspond to the relative importance of the subjects treated, as well as to the newly established hierarchy: plants, animals, men. The lower two bands show plants and animals, the upper two a sequential procession of bearers of offerings, culminating in the actual presentation of the offerings in the broadest band around the top of the vase. The influence of the cylinder seal, rolling out its continuously repeated sequences, can be recognized.

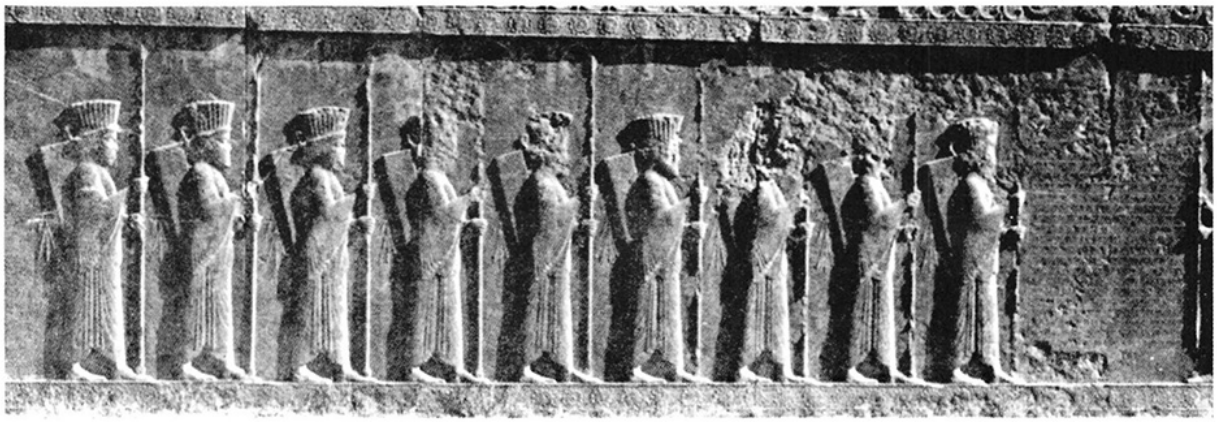
The two inward-tilting panels of the Standard of Ur (ca. 2500 B.C.) are each separated into three parallel bands. On one of these a long line of cloaked **right** soldiers is presented in rigid sequence. The technique used is a colorful inlay of pieces of shell set in bitumen.

It is a long step from the intensity of Mesopotamian seal impressions to the oversize reliefs that line courts, passages, and throne rooms of the palaces of the last kings of Assyria. The figures have become vacuous — like overenlarged photographs that have lost all their original intensity.

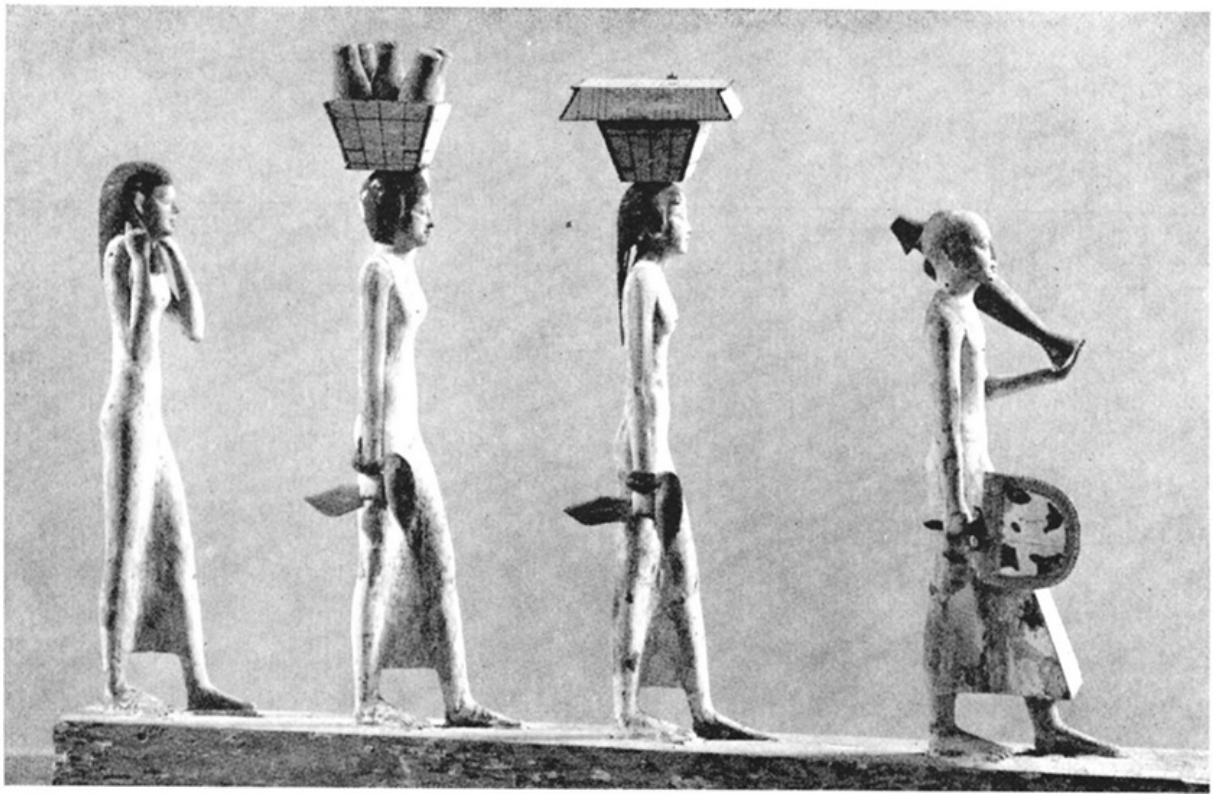


SEQUENCE OF SOLDIERS, STANDARD OF UR: *Part of one of the tilted panels, showing a sequence of kilted and cloaked soldiers represented in shell pressed into bitumen; ca. 2500* B.C.

The principle of sequential order never vanished from this area, for it was taken over by the Persians, who ended the historic existence of Mesopotamia. In their great palaces at Persepolis, Darius I and Xerxes built two monumental stairways leading from the audience hall of Darius and the hundred-pillared throne room of Xerxes to the general palace quarters upon a higher level. The wall behind them is spread with reliefs of tribute bearers seemingly ascending the stairways. They come from all parts of the empire and include, as two millenniums earlier, a line of guardsmen in strict sequential order. We are now only a **below** few decades from the riders on the Parthenon frieze. Frankfort stresses the plasticity in the Mesopotamian figures which, with the greater refinement of garments and other details, betrays the hands of the Greek craftsmen brought in by Darius from his Ionian campaigns (as recounted in a large inscription replete with overweening self-acclamation). But there can be no doubt that the stiff verticals of the petrified guests, marching along the wide walls of the staircase between strongly defined parallel bands of rosettes, still follow the same rules of composition as the cylinder seals more than two millenniums earlier. But the early artistic impetus of the latter, long clouded over, has now become stereotyped. No importation of artists from all the parts of the then known world could breathe life into this stiff pomposity.



SEQUENCE OF SOLDIERS, PERSEPOLIS: *Part of the reliefs lining the monumental stairways of the palaces of Darius I and Xerxes. Fifth century* B.C.



EGYPTIAN SEQUENCE: *Wooden models of bearers of offerings. Three tall and slender women, two bearing provisions and live ducks, follow an overseer. From a tomb in Deir el Bersheh, Middle Kingdom*

We are at the end of an epoch. The relaxed attitudes of the riders to the Panathenaean festival a generation later demonstrate how great a distance had already been traveled from the rigidity of the oriental despots.

Sequence in Egypt

In the early period, Mesopotamia and Iran present a far wider range of information on the development of the sequence than does Egypt. In Predynastic times and even during the First and Second Dynasties, Egypt's artistic energy was concentrated upon perfection of form and craftsmanship. Its undecorated vessels of hard stone have no counterparts in Sumer. Even at this early period they express that essential demand of the Egyptian mind for a never-ending existence.

The sequence appears in Egypt in full expansion at the opening of the pyramid age. Upon the walls of Sneferu's valley temple at Dahshur is a frieze of young women with outstretched arms — all identical — each bearing a platter of gifts and the *ankh.* They represent the different provinces of Egypt and can only be distinguished from one another by the provincial emblems above their heads. These slender maidens are the first known Egyptian representation of bearers of offerings: a motif that was further developed during the Middle Kingdom and that never entirely disappeared.

During the Fifth Dynasty a magnificent display of scenes was created in the mastabas of the nobles. Sometimes a single incident covers an entire wall — Ti **466** hunting in the marshes — sometimes a scene unfolds along several parallel bands separated by narrow strips. These principles were retained in the reliefs and paintings of the Middle Kingdom and the New Kingdom.

Mastery in rendering female grace is achieved in the finely carved wooden models of offering bearers from a Middle Kingdom tomb (Deir el Bersheh). Three slender, long-legged maidens march behind an overseer. Two of them **left** have the right arm pressed close against the side, with a live duck struggling in the hand, and carry a box of provisions on the head.

Architecture and sequence

Mesopotamia

After many experimental stages, upright walls, meeting each other at right **178 ff** angles, became the standard elements of a house.

The brick, the first standardized building material, had to go through a similar period of groping before it acquired the standard form that remained unchanged for five thousand years. The birthplace of the brick was Iran, at the end of the prehistoric period, but its real homeland was Mesopotamia, and the evolution of its standard form can best be traced there.

This country, which invented the means of changing discontinuous movements into a mechanical rotation, formed its crisply rectangular bricks in wooden molds: rectangular boxes into which clay (or clay mixed with straw) was pressed, then knocked out and left to dry in the sun.

The precise parallelepiped form of the brick was not exclusively the product of purely functional reasoning. It arose also from the demands of abstraction, rationalized under the spell of the vertical. Vertical walls composed of rectangular bricks formed large plane surfaces. How should these be organized, especially in the case of temples, which demanded a monumental distinction?

192 ff The walls of the early Mesopotamian temples, both inside and outside, were treated as a sequence of recessed panels. Their parallel vertical ridges gave the wall surface a pattern of light and shadow and that plasticity so beloved of the people of Mesopotamia both in the south and in the north. The refinement already achieved in the Al ‘Ubaid period around 3500 B.C. is indicated in the **196** northern temple of Tepe Gawra XIII and the archaic Uruk temples. This we have already dealt with, since there one could directly trace the gradual refinement of the buttress — architecture’s first means of reinforcement — to an articulation of recessed panels. In the levels below stratum XIII at Tepe Gawra, the walls of houses and sanctuaries are still reinforced by clumsy buttresses. A similar development could be traced at Eridu in the south, where simple buttresses **191** strengthened the walls of the oldest known sanctuary.

How elaborate the modeling of the temple wall had become by around **203** 3000 B.C. can best be seen in the large temples A-D at Uruk. Though only fragments of their ground plans are preserved, these show the great depth to which the paneled niches were hollowed out. The play of light along the sequence of recessions must have given the temple a most impressive plasticity.

This bold modeling was not developed further. One has to leap to the time of Hadrian to find similar tendencies. Neither the white temple at Uruk

nor any **202** other Sumerian sanctuary gave its walls such strongly plastic expression.

Egypt

At the dawn of history, the Nile valley adopted the Mesopotamian sequence of recessed niches together with many other innovations. When the Horus kings **118** conquered Lower Egypt, the recessed panels of the palace façades had already become a symbol. Similarly, the mastabas and cenotaphs of the kings of the **271** First Dynasty used recessed paneling for their superstructures and enclosure walls. Zoser made a striking use of the system when he surrounded his mortuary **248 col** complex at Saqqara with the first high wall of limestone.

254 col Only with the appearance of the true pyramid in the Fourth Dynasty was there a breakaway to the immaculate plane surface, which never afterward vanished **341 ff** from Egyptian architecture. It epitomized the deepest inner strivings.

PENETRATION OF THE VERTICAL INTO ART

The penetration of the vertical into Egyptian art was as fanatical as the effects of perspective representation in the Renaissance. The reliefs and sculptures of the Old Kingdom were completely under the spell of the new discovery. Everything focused upon it.

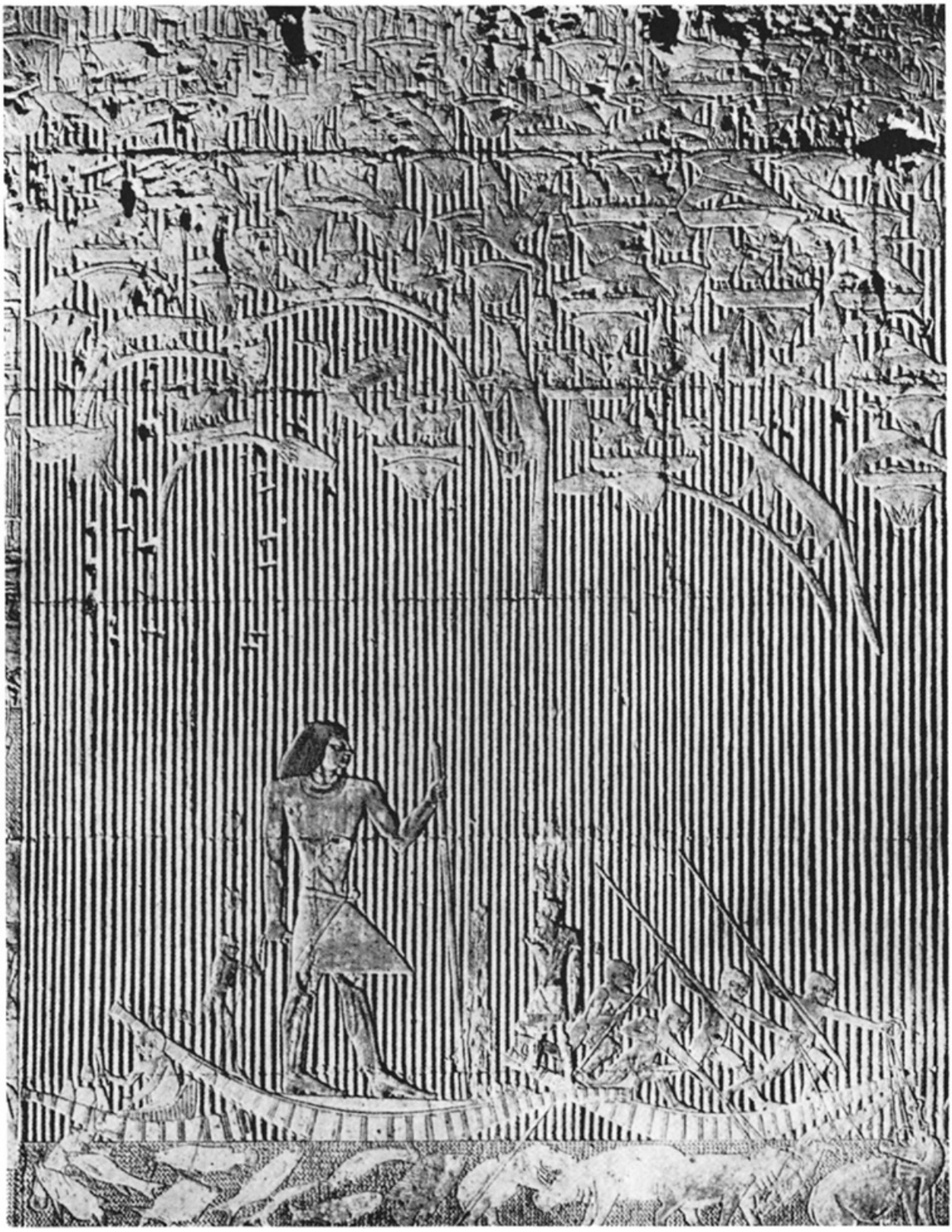
Two examples illustrate this penetration: a relief from the tomb of Ti, dating from the Fifth Dynasty, and one of the sculptured groups of King Mycerinus with two goddesses, from the Fourth Dynasty.

Relief: Ti hunting among the papyrus reeds

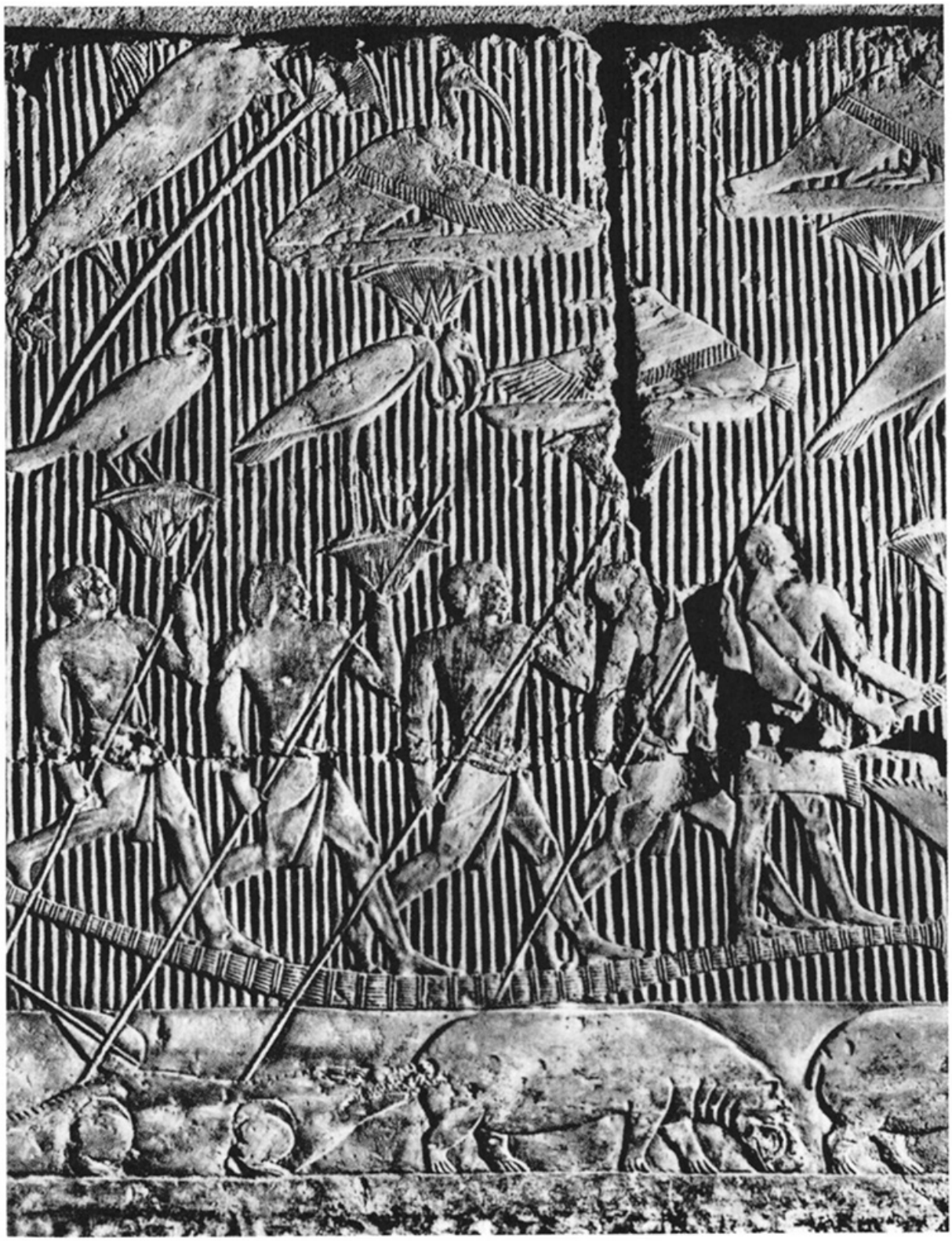
Ti, the highest official of several kings, a great landowner, and priest of Ne-uscr-ra's sun temple at Abu Gurob some miles south of the Giza pyramids, **335** is depicted more than life-size, standing erect in his Nile boat, strictly vertical **466** as was the rule for the standing human figure both earlier and later. He stands alone like a god upon his small boat, his staff in his hand, watching his servants corner a hippopotamus with spears. Their poles and their movements are depicted in rigid parallels. The power of the master is reflected by their small scale. The three boats glide on a strictly horizontal water surface indicated, as always in Egyptian representations, by a precise sequence of vertical zigzags. The background **453** is formed by a wall of soaring, closely packed vertical lines, somewhat like corrugated cardboard, but when one looks more closely, their triangular profiles become clear. They are the papyrus reeds of the Nile swamps. As in a similar relief from the tomb of Mereruka, freedom is allowed only to the denizens **467** of the transparent river, and to the birds along the upper edge of the relief, though their nests on the papyrus blossoms are arranged in almost parallel rows. Only a hunting chameleon and some birds in flight are permitted freedom of direction. In the New Kingdom, this primeval liberty was still granted to the birds flying across the ceilings of many tombs.

The regal gesture of the great man, strengthened by the background of vertical stems, indicates that in the structure of the state everything now had

its ordered hierarchical position.



TI HUNTING IN THE PAPYRUS MARSHES: *Relief on the north wall of the chapel of Ti's tomb. All is governed by the vertical. Saqqara, Fifth Dynasty. From Steindorff*



SAILING THROUGH THE MARSHES: *Detail from the tomb of Mereruka. Here Sixth also Dynasty the papyrus stems are represented by closely packed vertical lines. Saqqara,*

Sculpture: Mycerinus with two goddesses

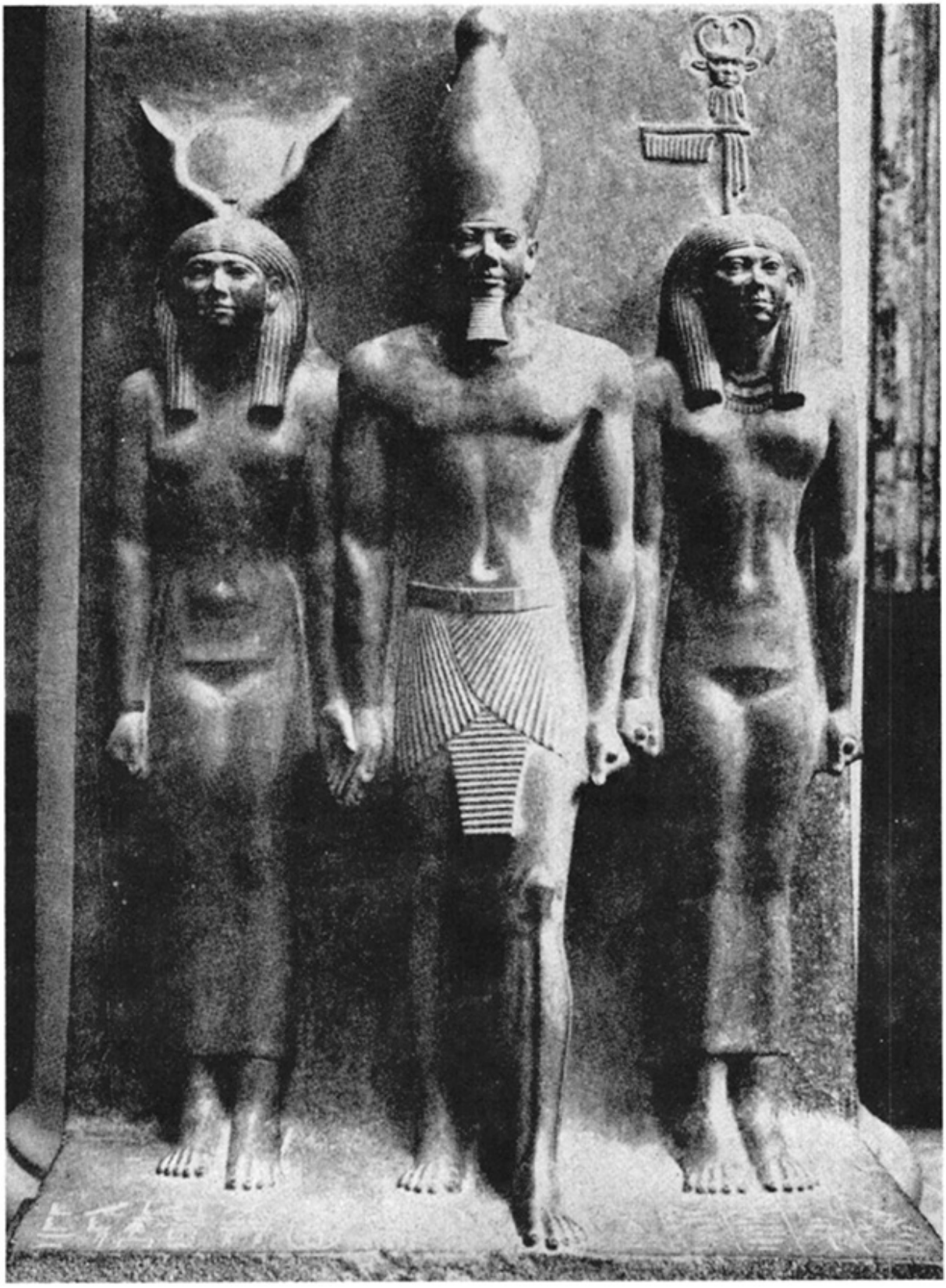
The vertical also forms a constituent element of three-dimensional sculpture. A vertical axis passes through the human body, to which everything appears magically bound. This is the line of intersection of two vertical planes crossing each other at a right angle. All parts of the body are projected upon, or parallel **167 ff** to, these intersecting planes. For three millenniums the method of composition through vertical planes was maintained. One of the secrets of Egyptian art was that this extreme artistic discipline never became locked into schematic rigidity. Sculptures and reliefs continued to emanate a grace that carries with it a breath simultaneously of life and of inaccessibility. One of the groups of King Mycerinus **right** accompanied by two goddesses, found in the valley temple belonging to his pyramid, indicates the growing use of the vertical as an organizing principle for sculpture in the round.

2 90 Instead of the lonely darkness of King Zoser enthroned in his serdab, or the **326** solemnity of Chephren in his valley temple, we have a group of three persons, a human group that appears to approach the onlooker — the face of the Pharaoh stronglv modeled as though addressing the spectator rather than eternity. In this triad the king is accompanied by Hathor and a somewhat smaller figure personifying the goddess of one of the nomes. Here we are concerned exclusively with the compositional order of this sculpture; we have already dealt with the **111 ff** Hathor nudes of the Fourth Dynasty as the earliest representations of the beauty of the female body.

Upon the base of another of these groups (Museum of Fine Arts, Boston) is an inscription in which the goddess Hathor says: “I have given to you all good offerings of the South forever” (Smith, 1960, p. 43). This shows that the goddess of the province in this triad serves the same purpose as representations **462** of worldly goods, or of servant girls bearing laden baskets on their heads. Three other triads found with this also represented provinces of Upper Egypt, and it is not unlikely that there were originally statues representing all the Nomes of Upper and Lower Egypt. Through these the king would have been able to draw upon the whole country for nourishment after death” (p. 46).

In these triads the symbol takes on an anthropomorphic form. It changes into a human relationship. The gods become humans and the humans

become gods. **80 ff** Hathor, originating in Upper Egypt (Denderah), was at first the divine cow, the primeval mother, closely related, as always, to the king. After she became the goddess of love, she retained only the last remnants of her primeval shape.



TRIAD OF MYCERINUS: *King Mycecinus, the goddess Hathor, and the goddess of a nome. A vertical axial plane passed through the human body frontally and laterally constitutes the basis of the composition*

In these triads she still wears as headdress a pair of horns with the solar disk between them. Her open left hand rests gently against the open right hand of the king. Her right hand, in the customary manner, is firmly clenched. The king wears his insignia: the white crown of Upper Egypt, the royal beard, and the royal apron. Apart from this he is naked. The whole group has a quality of human purpose, as though they are on their way to an agreed destination.

The vertical axis provides the germinating inner strength of each of these figures and a framework for the whole composition. The three vertical axes of the triad are made even stronger by the vertical-horizontal planes that accompany them. The group, carved in gray-green slate, is freed from the block but retains the vertical plane as a dominating background. This is strengthened by the horizontal base upon which — as always — the feet stand flat. Thus a striking L-shape, jutting from the wall and the floor, intensifies the vertical-horizontal organization.

These are just the first primitive evidences that leap immediately to the eye. The way the supremacy of the vertical works in the inner evolution of art is more secret and more complex; for behind it stands a play of relationships that, without being pompous, one can call universal. Many scholars have brought these relations to light.

The starting point is always the plane surface. The vertical engendered the plane: then the vertical plane became a picture plane. Never before and never since has the vertical plane acted with such strength as a constituent element of the composition.

482 ff To this is linked the invention of the squared grid, which was traced out upon unfinished reliefs and sculptures and from which were developed far-reaching relationships between human forms, proportions, and the Egyptian system of measurement.

THE VERTICAL AND ITS RELATIONS

It was deeply rooted in the Egyptian mentality that geometric and arithmetic considerations could not arise from a limited setting. In a seldom quoted passage from the *Republic,* Plato puts forward a concept of geometry that can be termed completely Egyptian in the sense of the relations between geometry and the form of the pyramids. He must have learned this as a Greek initiate into the Heliopolitan priesthood.

It is true that Plato first speaks of the practical use of geometry to mark out a site, but then he proceeds to its true purpose: “The real object of the entire study is pure knowledge . . . the knowledge of that which always is and not of a something which at some time comes into being and passes away . . . geometry is the knowledge of the eternally existent ... it would tend to draw the soul to truth" (VII 527 B; tr. Shorey, 1946).

Egyptian discoveries, as far as we can gather from their writings and monuments, were based on relationships often as surprising as far-reaching. This is apparent in the Egyptian system of numbers. If an Egyptian wanted to express a fraction, he did not use absolute values as we do. Instead of the fraction $\frac{6}{7}$, for instance, he would give a relation to the total unity: $1 - \frac{1}{7}$. The Egyptians “made use only of fractions with the numerator 1, with the sole exception of ⅔ for which they had a special symbol. When they divide a line into 7, the result is *one* seventh which is to be regarded rather as a *quality* than a *quantity.* The remainder is not $\frac{6}{7}$, but a complementary fraction (i.e., $1 - \frac{1}{7}$). In this way an intimate relationship arose between the original whole and the part, between the part and its complementary fraction” (Kielland, 1955, p. 10).

The Egyptian acted similarly when he had to determine the slope of an angle, which was of great importance, for example, in the case of the pyramids. He worked it out through relationships, not directly. In the interpretation of one of the most important mathematical sources of the Middle Kingdom, the *Rhind Papyrus,* Borchardt draws attention to the method of determining angles. The starting point is the right-angled triangle. Its height remains constant (28 fingers). Its base is variable. The

angle of inclination is determined by the specific length of this base (1893, pp. 15-16).

The Egyptians, with their strong visual sense, took to geometry more readily than to arithmetic. With them everything was related to perception, quite otherwise than with the calculation-minded Mesopotamian peoples. The Babylonians reckoned the angle by the number of its degrees, and the division of the circle was related to their sexagesimal system of numbering that divided the hour into 60 minutes and 3600 seconds (Neugebauer, 1945, p. 12).

In the Egyptian method of establishing the size of an angle, one senses the geometer on the building site setting up his triangle everywhere, for example to control the slope of the pyramid, while the Babylonian division of the angle into degrees is far more closely related to the stargazing astronomer.

The right-angled triangle

The vertical cannot be conceived of in isolation. It is indicated by auxiliaries to which it is inseparably connected: the horizontal and the intervening angle of ninety degrees. From the reciprocal interdependence of these three components the right-angled triangle arises, composed of a vertical and a horizontal line with their terminal points connected. This encloses a new element: *a plane.* As the vertical became supreme over all directions, the right-angled triangle rose to prime importance. It exercised an almost magical attraction as discoveries were made of its hidden properties and laws. It is not too much to say that here lay the starting point of geometrical thinking.

The imagination of this period saw the right-angled triangle not only as a geometric phenomenon with special properties upon which man could meditate, but as completely bound to a mythopoeic spatial relationship.

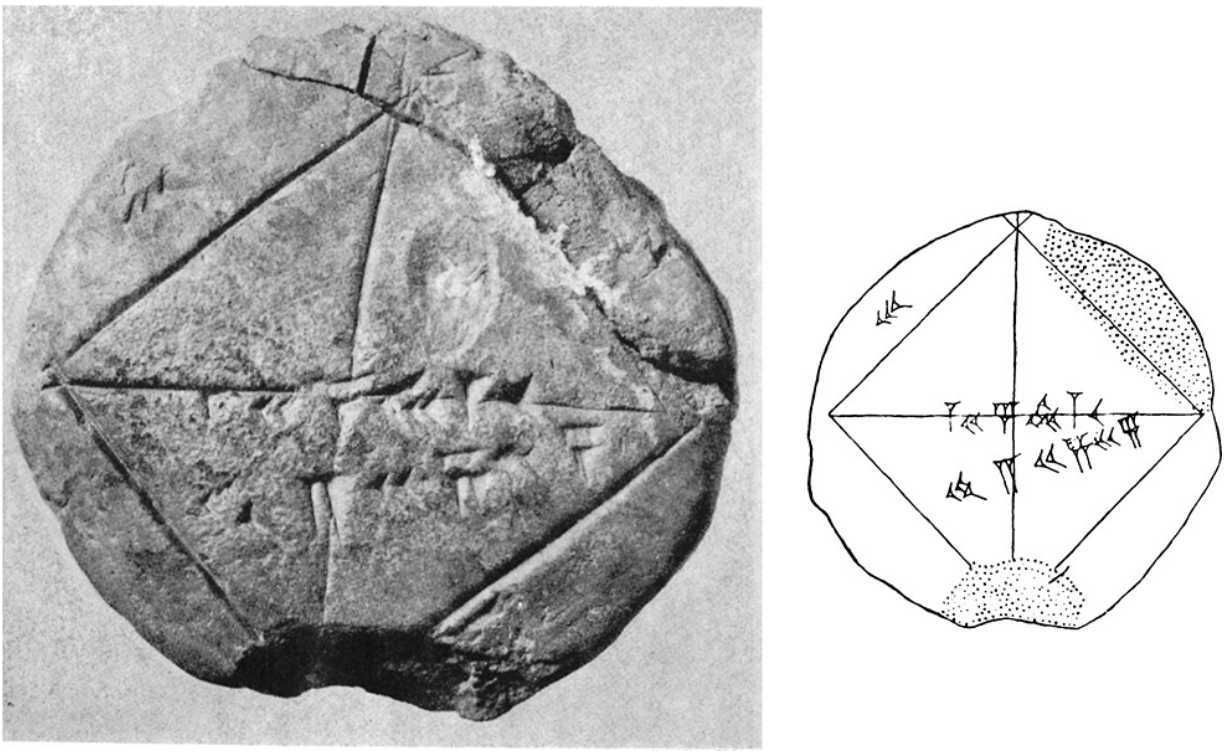
This was expressed for the first time, in staggering dimension, by the pyramids, **257 col** and nowhere more impressively than in the great pyramid of Cheops. No other pyramid has so intrigued scholars over the last one hundred and fifty years. Its decisive right-angled triangle lies hidden from the eyes of the layman. It only appears when a plane perpendicular to the square plane of the base is cut **478** through the apex of the pyramid. Its

catheti are formed by the vertical height of the pyramid (*h*) and the horizontal base that connects the end point of *h* with one of the square sides of the ground plan. The practical value of this triangle will be immediately evident: it determined the angle of slope that governed the form and appearance of the pyramid. But it also signified much more.

The Pythagorean theorem: relations between lines and planes

In the realm of geometric ratios, the jump from relationships between lines — i.e., the proportions of their lengths — to relationships between planes and lines is particularly informative.

The theorem that bears the name of Pythagoras aims at establishing, in a specific case, relationships between lines and planes beyond those immediately visible to the eye. Let us for a moment forget the statement of this theorem: that in a right-angled triangle the sum of the squares on the shorter sides (catheti) equals the square on the hypotenuse. Let us instead approach it from a methodological point of view. What interests us is the method of thinking expressed here, a method which is never held up by details but always follows the scent further, making unexpected leaps to discover relationships: in this case, the relations between the sides of the right-angled triangle and the squares built up on them.



CLAY TABLET WITH CUNEIFORM SCRIPT: *The Pythagorean theorem in Babylonia; ca. 1600* B.C. "*We know today that all the factual mathematical knowledge which is ascribed to the early Greek philosophers was known many centuries before" (Otto Neugebauer*). *With drawing*

The Pythagorean theorem fits into the Egyptian climate of thought. Here is the relation between horizontal, vertical, and right angle. Here is their relation to the square, which had such an extraordinary fascination for the imagination **348** of that time. The circle and the curve, apart from a few specific exceptions, are banished from Egyptian art. We do not know much about the magical meaning the Egyptians attributed to the square. Its relation to the number four, regarded as the holy number, is obvious. In this sense it becomes the powerful basis for the pyramid. From the triangle which is formed by placing a vertical plane, parallel to one of the sides of the square, through the apex of the pyramid, new relations were developed. The Pythagorean theorem is closely linked to the form and proportions of the pyramid.

It is significant that the right-angled triangle formed the starting point both of the Pythagorean theorem and of the golden section. But neither is mentioned in the *Rhind Papyrus*. Borchardt asserts cautiously that one should not assume any knowledge of the Pythagorean theorem among the Egyptians.

Otto Neugebauer, the leading investigator of exact knowledge in the high civilizations of antiquity, goes further. No known source, according to him, speaks of the relation between the squares on the catheti and that on the hypotenuse in Pythagorean form. Nevertheless, it appears quite possible that Egyptian geometry was aware of the content of the Pythagorean theorem (1934, p. 122). Later, Neugebauer put the case more strongly: "It seems to me evident, however, that the traditional stories of discoveries made by Thales or Pythagoras must be discarded as totally unhistorical . . . . We know today that all the factual mathematical knowledge which is ascribed to the early Greek philosophers was known many centuries before, though without the accompanying evidence . . . which the mathematicians of the fourth century would have called a proof" (1951, p. 142). In its stead there existed in Babylon an interest in problems of approximation. A small tablet with cuneiform writing, now in **473** the Yale Babylonian collection, shows a square with its two diagonals. From the accompanying figures, it follows that the length of the diagonals $(\sqrt{2})$ was computed from the length of the sides. The tablet dates from about 1600 B.C. Whether the Pythagorean theorem, the knowledge of which it confirms, was known earlier, hidden in the interrelating measurements of the pyramids, and whether it had crossed the borders of Mesopotamia in exact form, is left to the individual imagination. Bearing in mind how influences in the artistic realm went back and forth between Mesopotamia and Egypt, not only during the early dynasties but even in Predynastic times, the isolation of this knowledge appears at least unlikely.

The golden section and the pyramid

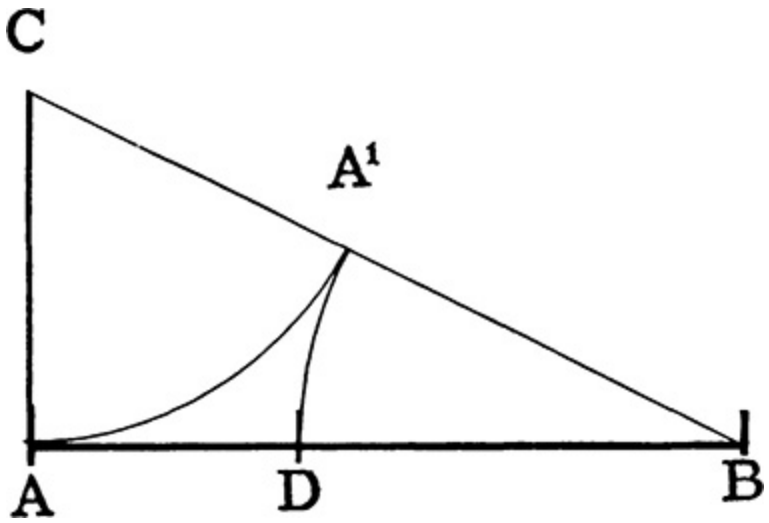
Among the qualities hidden within the right-angled triangle are the proportions of the golden section, which from their unique characteristics are also called *divina proportione.* The term goes back to the Franciscan friar Luca Pacioli, who in 1509 published in Venice a book with the title *Divina Proportione.* It may even be that the expression was first used by his friend Leonardo da Vinci, with whom Pacioli was in close contact in Milan in 1496 and 1497 when he was writing his book and Leonardo was painting his *Last Supper.*

The golden section consists of the division of a straight line into two unequal parts, in such a way that the smaller part is in the same ratio to the larger part **below** as the larger part is to the whole. The smaller part is called the minor, the larger the major, and the golden section therefore consists of the following proportion:

Minor	:	Major	=	Major	:	(Minor	+	Major)
AD	:	*DB*	=	*DB*	:	*AD*	+	*DB*

Thus the golden section presented a special means of mediating between contrasts, "because in the golden section two extremes are related by an intermediate proportion" (Pfeifer, 1885, p. 190). In this apparently simple statement lies hidden a many-sided play of relations, as well as many unique properties which were noted by the seventeenth-century astronomer Johannes Kepler, who first used the terms "major" and "minor."

The use of ø to represent the golden section was first introduced around 1910 by an Englishman, William Schooling. "The symbol ø given to this proportion was chosen partly . . . because it is the first letter of the name of Pheidias, in whose sculpture this proportion is seen to prevail when the distances between salient points are measured" (Cook, 1914, p. 420).



THE GOLDEN SECTION

The question immediately arises: Is it due to a conscious or an unconscious use of the golden section that this proportion recurs so frequently in architecture? The great role it plays in the pyramids rules out

any accidental use of the laws of proportion. It is certain that its logical deductions were first set down by Euclid in the third century B.C. on Egyptian soil in the form of propositions, proofs, and conclusions, and that its practical utilization can be established throughout the Egyptian development.

One can repeatedly observe that Egyptian thinking was far removed from logical demonstration. It is fruitless to search for it. Neugebauer stresses that the Pythagoreans, whose dependence on Egyptian knowledge is well known, held the golden section in high esteem, but that no Egyptologist has ever found it mentioned in any hieroglyphic text (1934, p. 122, footnote). Elaborate investigations have been made, those by Else Christie Kielland for example, which have shown with surprising penetration that the organization of an Egyptian relief, sculpture, or piece of furniture is based on a universal, though often complicated, application of the golden section (1955).

The division of a line by the golden section is achieved quite simply. The starting points are the vertical, the horizontal, and a right-angled triangle whose **475** longer cathetus (*AB)* measures twice the length of the small one (*AC).* Swinging the small cathetus onto the hypotenuse, we find point A^1**.** A second curve from the point A^1 to the long cathetus *AB* gives point *D* which divides *AB* in the proportion of the golden section. The simple method of the division is reminiscent of that by which the Egyptians determined the inclination of an **471** angle: keeping the height constant and varying the base line.

The absence of any written records about the meaning of the pyramids has given rise during this and the last century to fantastic theories of their central location on the globe; to the reading into them of mysterious prophecies; and to assumptions that they were not tombs but rather a crystallization of the scientific knowledge of the time. These theories were often based on inexact or even false measurements. The attractively illustrated volumes by the Astronomer-Royal for Scotland (Smyth, 1867) remain among the best known. They have been sufficiently judged.

Fantastic astronomical messages have also been read into the dimensions of the great pyramid: an assertion that the distance of the sun from the earth is one thousand million times the height of the pyramid, or that, from other of its dimensions, the radius of the earth and even the climatic changes of the ice age can be deciphered (Moreux, 1923).

Borchardt in 1922 ignored everything not already pinpointed by documentary evidence, and Noel F. Wheeler in 1935 was even more rationalistic. Certainly distinctions between "journalistic rubbish and scientific statements" (p. 5) are necessary, but it is doubtful whether one can reject as ‘‘hair-raising formulae ... all founded on the same sand as the rest" (p. 293) everything that cannot be measured with a yardstick, since doing so contradicts the nature of Egyptian thought. When, much earlier, a great Egyptologist like E. A. W. Budge stated that the pyramids were built "as a *tomb* and as nothing but a tomb" (ibid., p. 303), it was a trite projection of a materialistic point of view into a world in which everything turned on relationships, on multiple meanings, on the interpenetration of the spheres of the here and the hereafter.

We cannot decipher the symbolic meanings inherent in the dimensions of the pyramid. But sometimes their presence shines through. Lauer, despite his thoroughly critical approach, docs not categorically reject everything for which no documentary records exist. In his chapter "Theories: Les Prétendus Secrets des pyramides" he carefully selects those for which direct relationships can be found (1948, pp. 110-60).

The pyramid and its planes

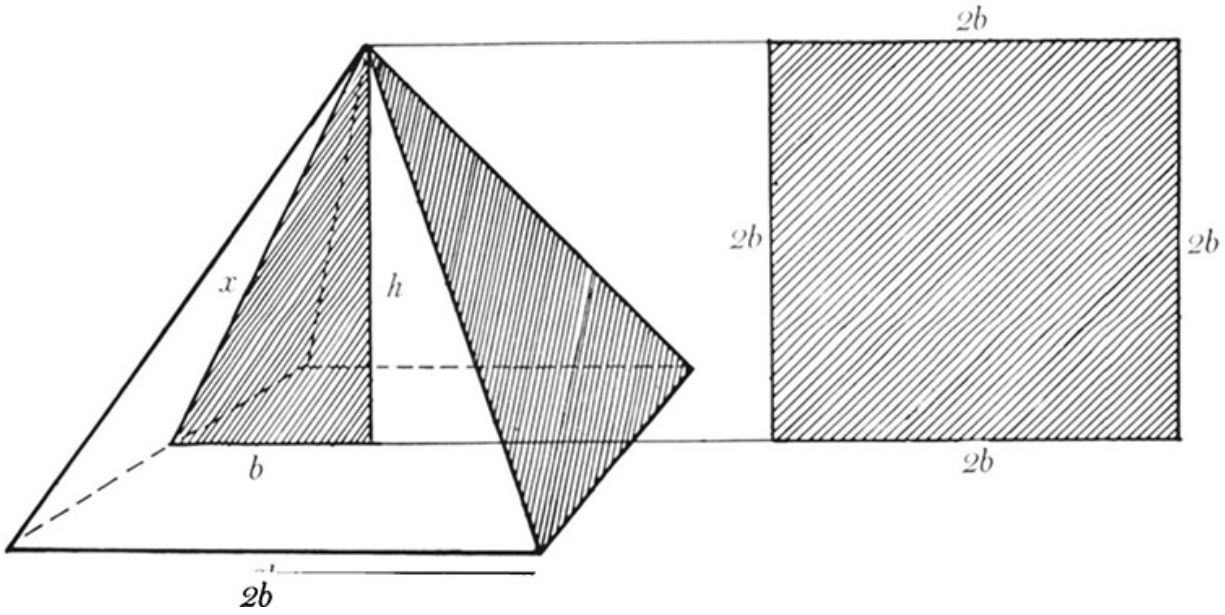
It is in the nature of the golden section that it automatically introduces a continuity of proportions and an infinite series of harmonic reflections. M. Ghyka (1927) has investigated the properties of the golden section more carefully than anyone else of the present day. This endless continuity of related proportions may be the reason why the lines and planes of the great pyramid are always disclosing new aspects of the golden section.

First came a relationship of the planes known since antiquity. Tradition, though no direct proof, asserts that this knowledge goes back to Herodotus, who learned it from the priests of Heliopolis.

The starting point is the triangle that results from slicing the pyramid in two on a line parallel to one of its sides. This triangle forms the surface of a half-section **478** of the pyramid. The so-called equation of Herodotus states that the square of the height (h^2) equals the area of one of the sloping side triangles:

$$h^2 = bx$$

Here *b* equals half the base and *x* the center line of the sloping side triangle. This assertion thus contains a relation between the absolute height of the pyramid, its base, and its sloping sides. Moreover, by means of a simple deduction it becomes clear that in the median triangle the catheti (height of the pyramid, *h,* and *b,* half of its base) stand in the ø relationship (Lauer, 1948, p. 191). This was discovered, or rather rediscovered, around the middle of the nineteenth century. The line *x* of this triangle, running from the middle of the base to the apex of the pyramid, at the same time establishes the important angle of elevation.



THE EQUATION OF HERODOTUS ($h^2 = bx$): *This expresses the relationship between the height of the great pyramid and the surface of one of its constituent triangles. The square of the height equals the area of one of these triangles*

The golden section also governs the relations of the actual surface planes of the pyramid to one another. The surface of the square base is in the same ratio to the sum of the four sloping triangles as these are to the total surface area. Lauer reports (p. 158) that this relationship was discovered from simple observation by K. Kleppisch, a Warsaw engineer.

We can touch only lightly upon the connections of π and the golden section. There have been copious discussions as to how much the Egyptians knew of the value of π, the relation between the circumference and the

diameter of a circle. It stands to reason that, with their method of thinking, they would express it only as a ratio, in the form of a fraction. It can be asserted that "the relation of the perimeter of the base of the great pyramid to twice the height equals π" and further that “the relation of the area of the base to the area of the median section equals π” (ibid., p. 192). In confirming this, Lauer adds the remark of a mathematician, Paul Montel, who had drawn his attention to a little-noticed connection between π and ϕ:

$$0.618 = \frac{1}{\phi} = \left(\frac{\pi}{4}\right)^2 = \left(\frac{3.1416}{4}\right)^2 = 0.617$$

thus, one might say, closing the chain of relationships (ibid.).

SCULPTURE AND THE VERTICAL PLANE

The Egyptian sculptor did not create his work from the rough stone. He started from a block hewn into the shape of a prism. A squared grid was marked on its **480** sides. On the front of the prism he would draw the figure *en face,* on the sides in profile, all according to the canon. Only then would he start his sculptural work. From the beginning, the relief or statue was enclosed in the rectangular block, in complete contrast to the method of a Lysippus or a Michelangelo.

What rules did the chisel obey?

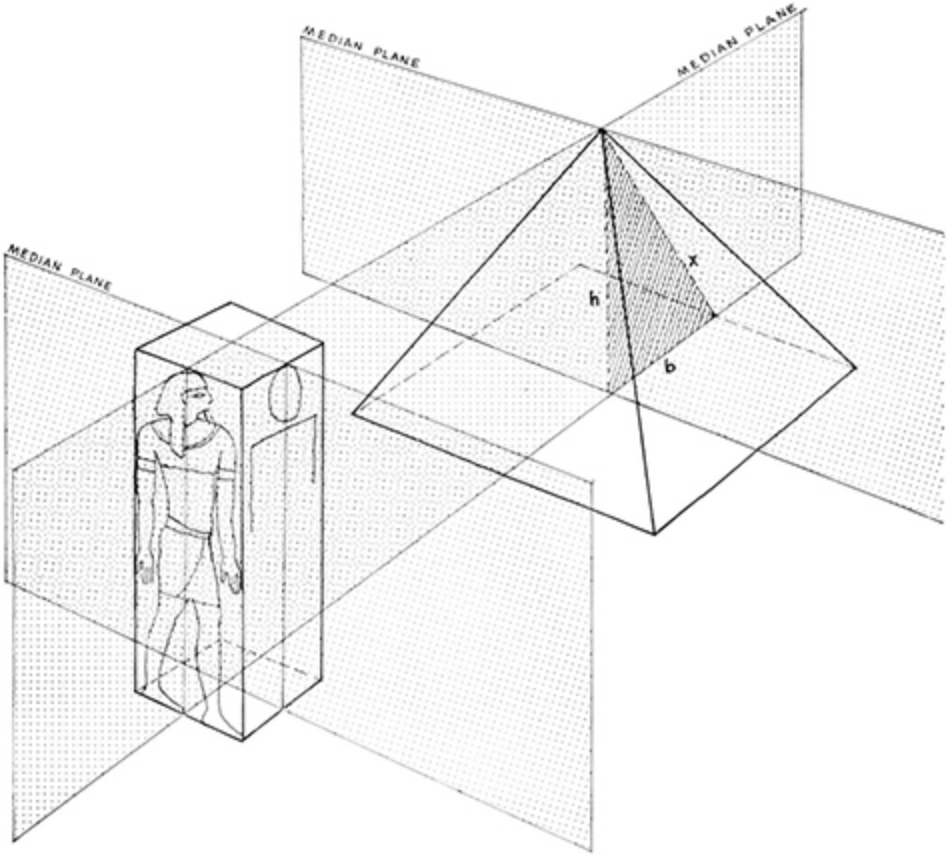
The Dane, Julius Lange, saw the constituent law of Egyptian sculpture to be the unconditional maintenance of a vertical plane, slicing centrally through the body. This "law of frontality," as he called it, was universal, and no deviations were permitted. Lange expressed his law for three-dimensional sculpture as follows: "Whatever position the figure assumes the rule applies that the central plane which can be supposed to lie lengthways through the human body, through the backbone, the crown, the nose, the breastbone and the sexual organs, and which cuts it in two symmetrical halves, must retain its position in one plane, and cannot be turned or bent one way or the other" (quoted by Kielland, 1955, p. 23).

Basically, the law of frontality merely states that Egyptian sculpture is governed by the vertical plane. But in what planes are the limbs arranged? How are the arms and legs treated?

This is answered by Schäfer's investigations. He accepts Lange's law of frontality. In one place he even calls it a "brilliant discovery" (1929, p. 53), but he feels it is incomplete and elaborates his concept of a "straight view" which contrasts with Greek art of the fifth century B.C. "Though they employed quite different methods, it is certain that these [Egyptian] draftsmen were convinced that they had always represented nature as faithfully as possible. Although of course their physical eye, like any normal eye, registered the foreshortenings, they nevertheless neglect these apparent impressions and unconsciously record what their mental eye tells them, what they know about the nature of the body, or, not to lay too great a stress on the intellectual element, what lives in their imagination as reality.

Therefore I characterize their method of drawing as ‘the presentation of the straight view!’ ” (p. 34)

The term “straight view” serves to underline the contrast with a foreshortened or (as the Egyptians would perhaps have put it) a distorted portrayal of an object, such as was presented in Greek art and, nearly two thousand years later, was developed still further in perspective representation. The expression “straight view“ means that the parts of an object are depicted in their natural size and proportions. In this representation of “what their mental eye tells them“ Egyptian art continues the primeval tradition, though absolute freedom of the creative imagination is now strictly limited to “straight view“ presentations upon predetermined vertical parallel planes.

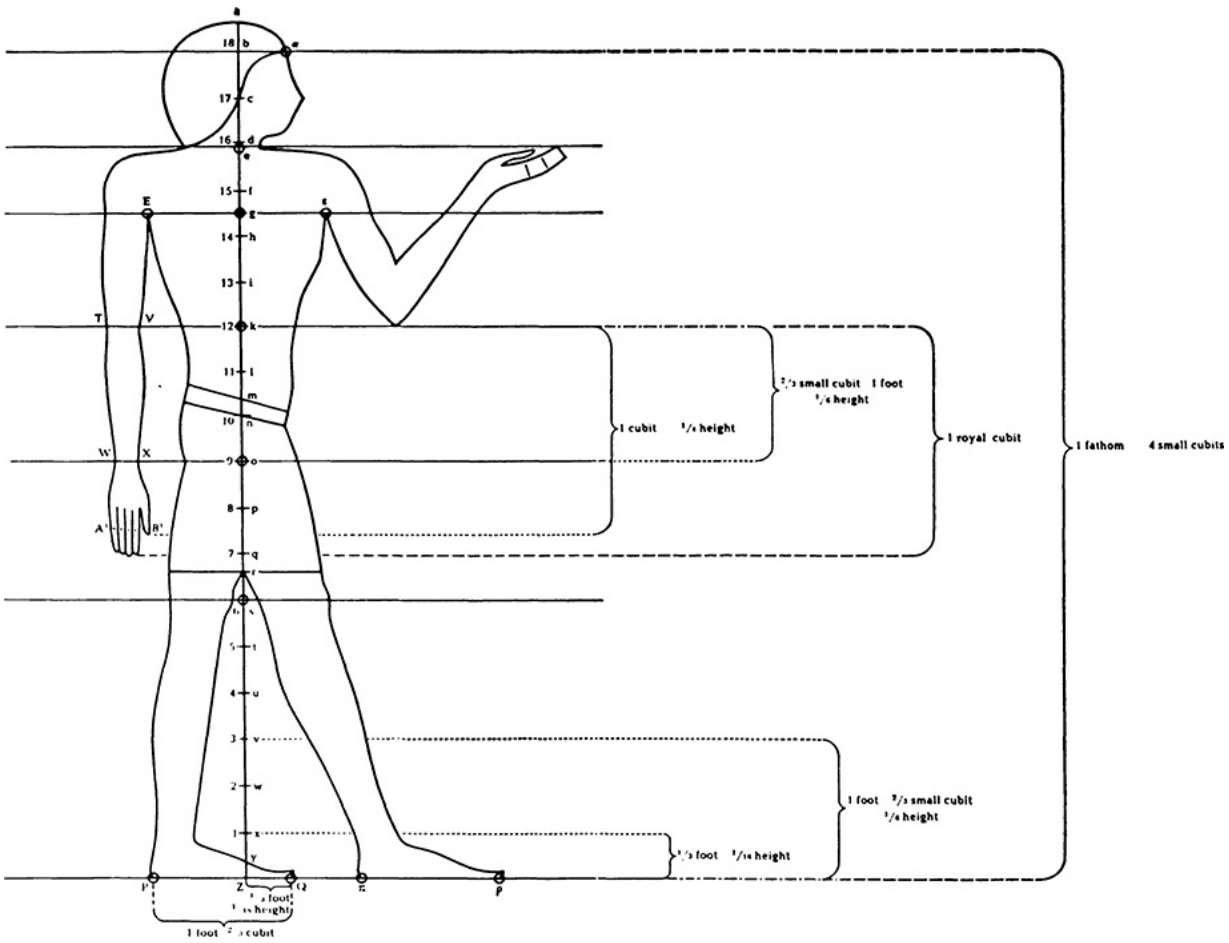


THE MEDIAN PLANE AS ORGANIZING PRINCIPLE *for pyramids and Egyptian sculpture*

“Consequently,“ says Schäfer, “a ‘pre-Greek’ statue, that is, one based on a ‘straight view’ conception, is on the whole composed out of four views standing at right angles to each other: a straight front and back view and

two straight side views" (p. 36). All the parts — head, torso, arms, and legs — remain within a framework of vertical planes. From this he develops his amplification of Lange's law of frontality. Human beings and animals "have two decisive dimensions to their perception. One lies in the widest contour of the front view of the head and torso, the other in the widest contour of the lateral view. . . . The resulting main directions, standing at rest at right angles to each other, fascinate the imagination of the pre-Greek artist to such an extent that the composition of his statues, even when portraying movement, is determined by two planes crossing each other at right angles. His "straight view" conception of the exterior surface of the parts of the body and limbs is related to and laid in these planes, or in invisible parallel planes, in a process similar to that by which he handles the planes in a relief" (ibid.).

In other words, the imaginary vertical axis of a standing figure becomes the line along which the two planes intersect at right angles. Thus, in addition to a single frontal plane, Schäfer recognizes that the figure is also governed by a plane standing square to the first: a kind of spatial axial cross. The line of intersection of these planes in the original rectangular block becomes the axis of the figure, and "invisible" parallel planes are added along which the limbs are arranged.



EGYPTIAN CANON OF HUMAN PROPORTIONS: *In the Old Kingdom the vertical axis passed through the navel. The dimensions and relations of different parts of the body are indicated by horizontal lines. From Iversen, after Lepsius*

THE MEANING OF THE SQUARED GRID

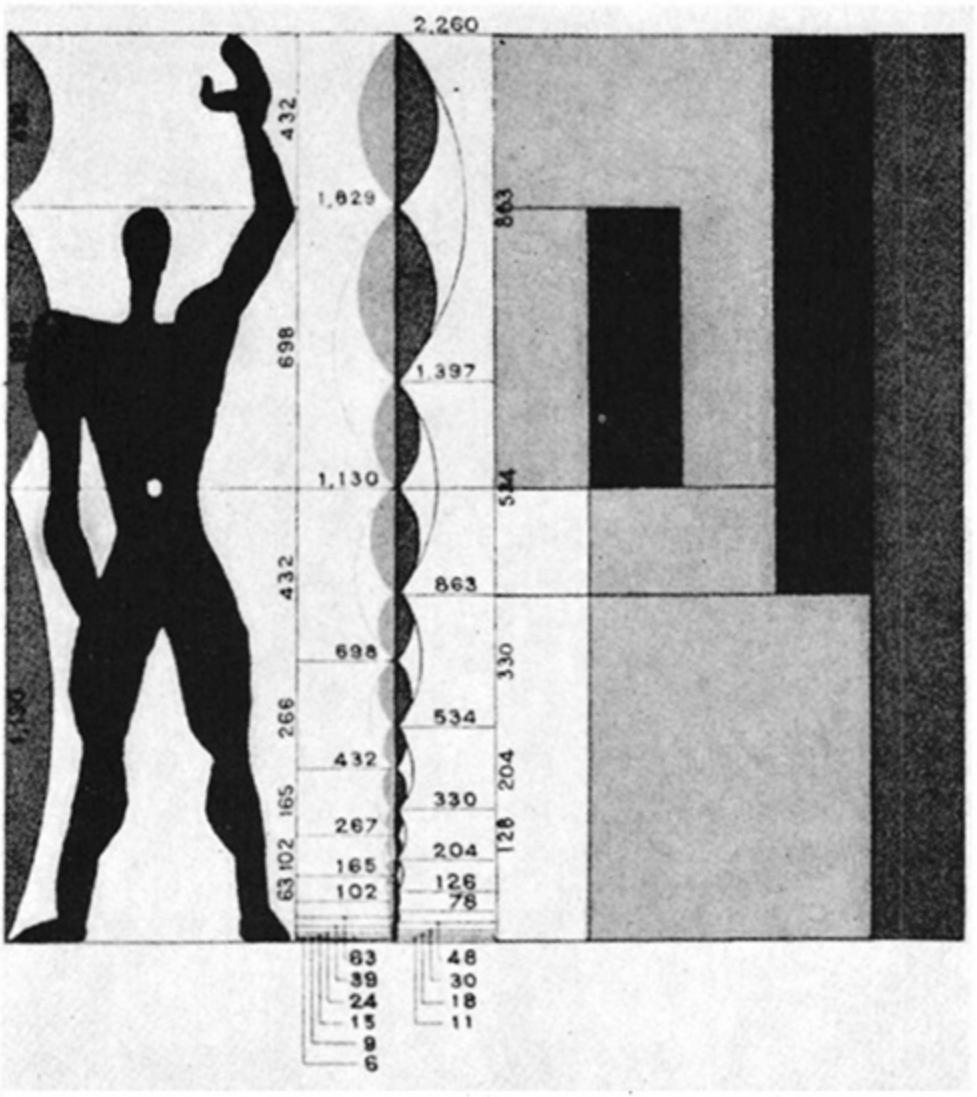
What is the meaning of the squared grid which the Egyptians invented for the execution of their reliefs and sculptures in the round?

More than a century ago, Lepsius, on an expedition to Egypt in 1842-46, recognized that the rows of figures ranged one above the other in an unfinished tomb in Saqqara were overlaid by a grid. Since then more than a hundred similar examples have been found.

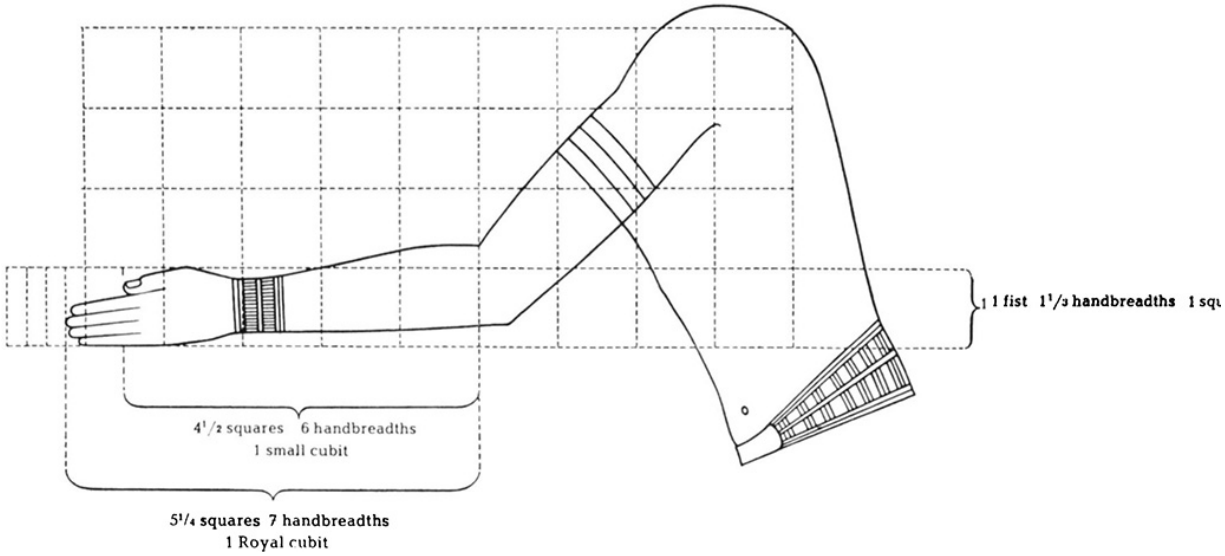
Lepsius did not stop at this discovery. He noticed that the center line of the **above** individual figure was emphasized as its vertical axis and was cut through by six horizontal lines. The foot was marked by two red dots. From these observations he developed his canon, i.e., a fixed system of proportions by which the unchanging relations of different parts of the human body were firmly established. As early as 1849 he announced: "Now for the first time we were able to distinguish sharply and clearly the different epochs of Egyptian art, each with its own personal character, up to then often unrecognized, so that their very existence was denied. ... I cite as one of the most important particulars, that in unfinished monuments I have found numerous examples of three different canons of proportion for the human body" (p. 20). These were from the Old and Middle Kingdoms and, with a complete change in the principles of subdivision, also from the New Kingdom. Thus Lepsius made the "fundamental observation" — as Erik Iversen calls it — that the relationship between the height, length of the arms, length of the foot, etc., simultaneously expressed units of the Egyptian measuring system (1955, p. 11).

Lepsius' expedition, which, on the recommendation of Alexander von Humboldt, had been sponsored by the King of Prussia, resulted in an inventory of the then known Egyptian monuments which was published in twelve gigantic volumes of plates, including some superb colored lithographs and drawings of details (Lepsius, 1849-59), and in rich treasures for the Berlin Museum. Commentaries based on his notes and diaries were published only after his death (ed. Naville, 1897-1913). Even more important were the thoughts which Lepsius formulated on the nature of Egyptian art, thoughts which are still valid, or rather, whose meaning has

been rediscovered today. He was one of the first to investigate the relationships which occur in all representations of the human body from the Old Kingdom until the end of the Egyptian era. He possessed something of the universal outlook of eighteenth-century philosophers and historians that continued into the first part of the nineteenth century: Jacob Burckhardt, almost a contemporary of Lepsius, is another example.



THE MODULOR, LE CORBUSIER: *In 1947 Le Corbusier's Modulor system reintroduced a canonlike relationship between the different parts of the human body "universally applicable to architecture and mechanics." From Le Corbusier*



THE FIST AS THE BASIC EGYPTIAN MODULE: *The sides of the squared grid were identical with the fist* (1⅓ *handbreadths*). *The "royal cubit" measured seven handbreadths* (5¼ *squares) from elbow joint to finger tips, the "small cubit" six handbreadths* (4½ *squares) from elbow joint to the tip of the thumb. From Iversen, after Lepsius*

But the materialistic approach of the following generation brushed aside Lepsius' findings. Leading Egyptologists, such as Maspero and G. Perrot, dismissed them with the facile explanation that the squared grid was merely the easiest way to transfer a drawing onto the stone.

It is only today that the deeper meanings of Lepsius' observations are being honored and developed; only now do we realize that in Egypt the proportions of the human body, the measuring system, and the divisions of the squared grid were closely related. This conception serves Iversen as the starting point for a more defined approach. He contradicts the assertion of Perrot and Maspero that the squared grid is only a *mise aux carreaux:* a tool with no other purpose than to facilitate the reproduction of the representation (1955, p. 54).

This remark about the setting into squares (*mise aux carreaux*) is not without interest. It shows once again how even distinguished scholars unconsciously transfer certain customs of their own day to the Egyptian mentality. The nineteenth-century painter's custom of facilitating the transfer of a sketch onto canvas by means of a squared grid has little connection with the Egyptian grid, which was bound up with the inner organization of the picture. The painter's grid is based on completely different premises, traceable to the Renaissance and the invention of

perspective as established by the generation of Florentine artists around 1400. Undoubtedly the nineteenth-century painter's use of the grid represents an adulteration of Leone Battista Alberti's invention of the squared grid as an "optical veil": the draftsman observed an object through a vertical transparent tissue covered with a squared netting and transferred it onto a similarly squared piece of paper. Albrecht Dürer indicated this method most vividly in his book *Underweysung der Messung mit dem Zirckel und Richtscheyt* (1525), where, among other examples, he shows how a woman's figure lying **486** in extreme foreshortening is transferred onto the drawing paper, using a squared grid scratched upon glass. This representation of an object as it appears, and not as it is, contains within it the notion of particularity and modern individualism. Both are alien to the Egyptian canon of relationships.

What were the relations between the Egyptian squared grid, the proportions of the human body, and linear measure?

The starting point was the standing human figure. The units of measure upon which all proportions were based were the hand and the arm: that part of the body which produces and creates things.

The squared grid based on the human handbreadth

The basic measure of the hand was the closed fist. This appears again and again in Egyptian statues, often holding a symbol of authority or an amulet, but sometimes without either. The fist became the basic module for all proportioning. This explains Iversen's brilliant equating of the side-lengths of the squares of the grid with the fist. The fist is measured over the knuckles across the breadth of the hand, including the thumb: "In all the grids the fist is equal to the side-length of the square" (1955, p. 33). Once the relation between the side-length of the grid and the fist had been determined, other proportions of the body could be expressed by it.

We are indebted to Iversen for the insight we now have into the theoretical background of the squared grid as well as into the relation between the sidelength of the square and the fist, which was still unknown to Lepsius (1884, p. 100).

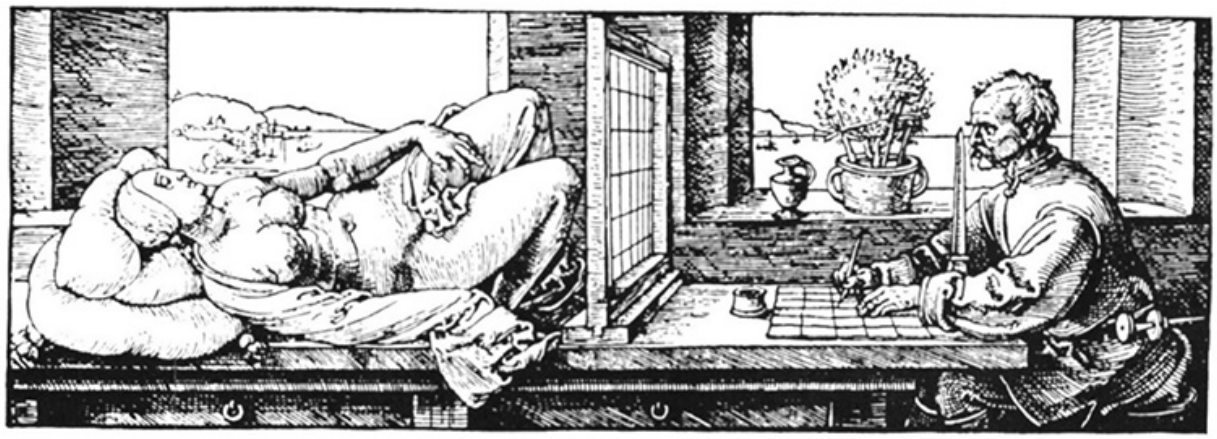
The dimensioning of the human figure

The outstretched hand and arm was another favored gesture throughout Egyptian art. From this was derived the decisive linear measurement: the cubit.

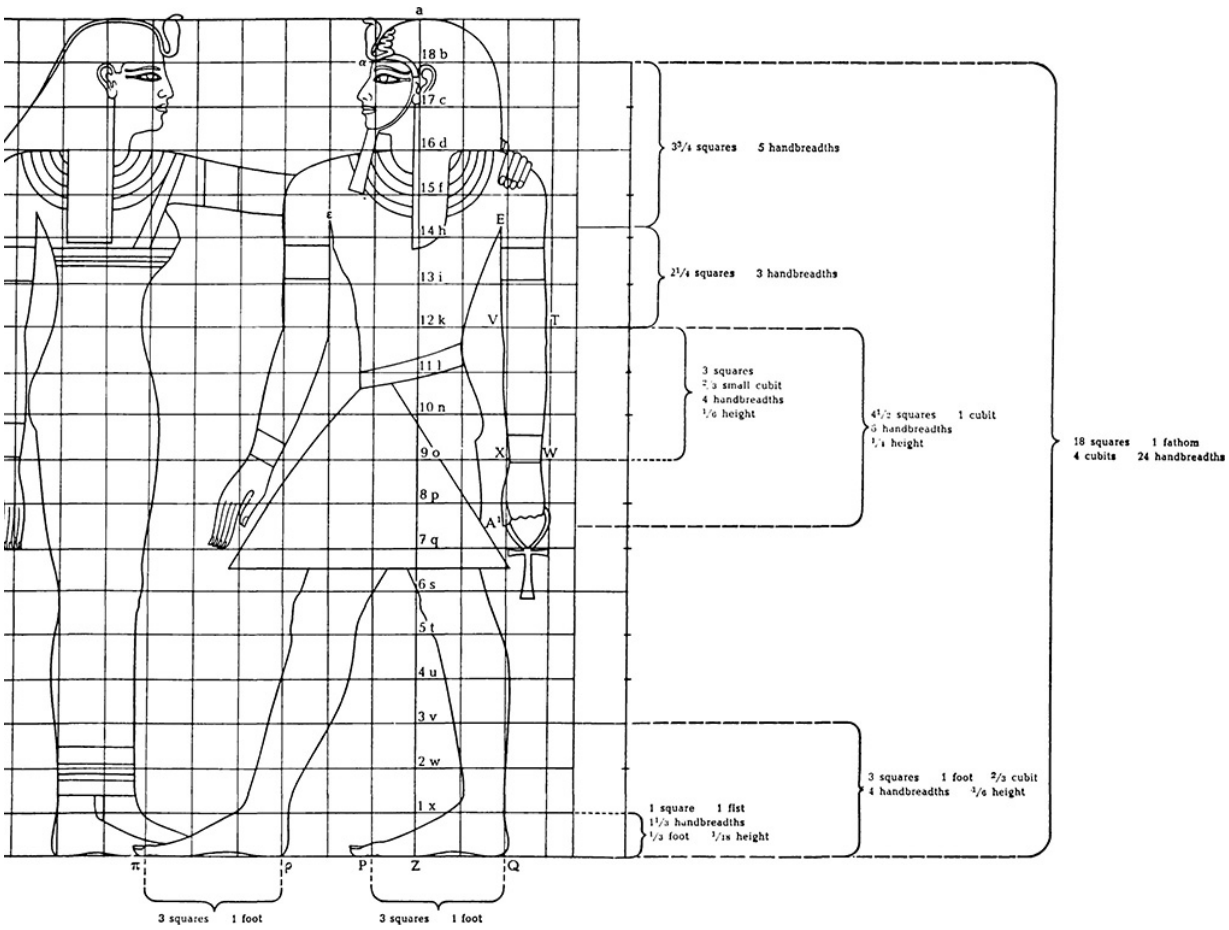
The "small cubit" was measured from the elbow to the tip of the thumb. It **484** consisted of six handbreadths. Each handbreadth was again divided into four fingers. The scale was still further elaborated by the organic subdivision of the fingers into, according to Lepsius, units almost as small as millimeters. The small cubit was the normal linear measure of the "old canon." In the old canon **right** human height was measured from the sole of the foot to the point where the wig or head covering joins the forehead.

Both the small cubit and the handbreadth were related to the squares of the grid: the cubit measured 4½ squares, the handbreadth ¾. The human body in the old canon measured 18 squares; i.e., 18 fists, or 4 cubits, or 6 feet *(*a foot comprises 3 squares), or 24 handbreadths. This indicates the interlacing and interplay of proportions, form, and linear measure.

The divisions of the small cubit are known to us directly through its marking on extant measuring rods (one of them in the British Museum), and through the description of Herodotus (II, 149; tr. 1949, Powell, p. 181), who identified it in general with the Greek cubit which was divided similarly (Lepsius, 1884, p. 5).



THE SQUARE GRID OF THE RENAISSANCE: *Artist drawing a reclining woman in perspective: woodcut by Diirer. The square grid which Alberti invented in the early fifteenth century assisted in the perspective reproduction of objects as they appear, rather than as they are*



THE HUMAN BODY AND THE SQUARE GRID IN EGYPT: *The square grid served to establish the absolute proportions of the human body. For instance, according to the "old canon," the human body measured eighteen squares (4 small cubits) from the soles of the feet to the forehead. From Iversen, after Lepsius*

Alongside the small cubit there was also the large "royal cubit," which exceeded the former by ⅙, or handbreadth, and was measured from the elbow to the tip of the middle finger, comprising 7 handbreadths. "The Egyptian designation of this cubit as royal already tells us that it is a particular cubit, distinguished from the ordinary one and consequently additional. This addition, however, was very old, older than the oldest stone monuments, for it was employed upon them. The marking on measuring rods apart, it is found exclusively in connection with building works. ... I have explained the name of the 'royal cubit' in this way, and I maintain that all massive erections, namely the pyramids and temples, were executed in the name of the king" (ibid., p. 18). It may perhaps be remembered that the Egyptians measured the inclination of a slope by employing a standard

dimension for the vertical and varying the horizontal measure. The vertical was always 28 fingers high, which corresponds exactly to the royal cubit. The royal cubit suppressed the small cubit completely during the Saite period in the seventh and sixth centuries B.C. Human height was then measured from the sole to the eyelid, comprising 21 squares, or 4 royal cubits.

As Lepsius pointed out, the cubit spread throughout the Mediterranean basin and the Middle East. The Greek measuring system was taken over from Egypt: “To be sure, the Greeks did not take the Egyptian cubit as the main standard of their linear system from the Egyptians, but established as such the *foot,* on their own initiative. Among the Egyptians this measure appeared not as a foot but as two-thirds of a cubit, or simply two-thirds, and remained in the background, seldom coming into use" (ibid., p. 33).

It seems that in Greece a certain relationship also existed between the artistic canon and the linear measure, as may be concluded from the “metrological relief” **below** in the Ashmolean Museum (Michaelis, 1883, p. 336). Above a man with outstretched arms is a footprint in curious isolation. The distance between the tips of his middle fingers appears to be closely related to the proportions of the Egyptian canon of the Late Period, since it equals the height from sole to eyelid, which comprised four royal cubits (Iversen, 1955, p. 59).

The relations and proportions of the canon all derive from natural observation, as do the linear measurements. In contrast to the meter, the cubit is a human measure, originating in the relation between hand, arm, and human height.

GREEK METROLOGICAL RELIEF: *Upper part of the body of a youth with outstretched arms, indicating the standard length of a fathom. A foot, the measure really used by the Greeks, is shown above the right arm; ca. 450* B.C.

PROPORTIONS IN ARCHITECTURE

Architecture is composed both of immediately visible forms and of an interrelationship between its elements, creating an integrated whole from a number of isolated parts. Here lies the function of proportions.

A sensitive eye can often instinctively sense when a oneness has been achieved among all parts of a building: its ground plan, shaping of spaces, and plastic elements. But such an optical survey is somewhat primitive and superficial. The interplay of proportions is less visible than the immediate forms and outlines.

The loss of a capacity to integrate parts into a comprehensible whole is not merely a shortcoming of our period but a perilous deficiency. Without it we are unable to attain a civilization in equipoise. Translated into architecture, this deficiency appears in the absence of one of its basic necessities: the conscious use of proportions. Misled or undisciplined individualists may believe in a haphazard rule of thumb, but real architecture cannot come into being unless all its parts are integrated, just as a building cannot be made to stand erect without someone's knowledge of construction.

Whatever earlier period is considered (classical, medieval, Renaissance), it will be found that all projects in all their parts — horizontal, vertical, spatial — were submitted to the invisible interplay of proportions.

No architecture is more imbued with proportions than that of Egypt, which stood at the beginning. One of the reasons is that proportions were then inseparably bound up with symbolic meanings.

The Egyptian demand for an embracing oneness in its conceptual image of the world could not be halted when it came to architecture. It came to the fore in the scrupulously careful cosmic orientation of the great pyramids. The ceremony of "Stretching the cord" (knotted at intervals of 3, 4, and *5* to form a right-angled triangle) was performed by the Pharaoh himself at the erection of all important sanctuaries. The value laid upon safeguarding the corners of a building is shown by the square holes found by Winlock at the mortuary temple of Mentuhotep at Deir el Bahari: "At each of the four

corners of the foundation trench a hole some three feet square was dug. On the appointed day — with the king present in person, in all probability — the priests approached one corner of the temple and placed in the hole the head, a leg, and a rib of a freshly slaughtered ox. Beside it they laid some conical loaves of bread . . . saucers filled with barley, figs, grapes . . . round cakes, and half a dozen miniature wine jars. All this was doubtless accompanied by prayers that the king, who would one day be buried in the temple, should never feel the pangs of hunger or of thirst" (1942, p. 51).

An Egyptian sanctuary was always conceived as a unity, and so no details exist that are without significance. It made no difference that the temples were growing organisms. Each part that was added was integrated into the whole by the use of the same system of proportions. Just as the proportions of the human figure were submitted to a grid based on the dimensions of the human hand, all proportions in architecture were related to the same basic system. This is not contradicted by the fact that proportions could be applied in many different ways.

Even before 1900, Choisy had recognized the use in Egyptian architecture of the equilateral and the golden section triangles (1899, I, pp. 51-57).

In the 1920's E. Mössel (Mössel, 1926) "discovered the use by the Egyptian architects of the summation series of Fibonacci or Lamé 1, 2, 3, 5, 8, 13, 21" (Badawy, 1961, p. 1), which comes so close to the golden section proportions. The series which bears the name of Leonardo Fibonacci, a thirteenth-century Italian professor, reappears again and again in the proportions of Egyptian architecture, and one can without difficulty assume that it was already known and used by the Egyptians: "It must be remembered that what we know about the mathematics and the science of the Egyptians is what they chose to let us know" (p. 9). Science was kept secret and hidden like the statue of a divinity.

In the 1950's the research of Badawy and R. A. Schwaller de Lubicz gave a detailed insight into the proportional organization of Egyptian buildings. Badawy did this in an unpublished work on ancient Egyptian design, Schwaller de Lubicz in three volumes devoted to the careful study of a single building complex, the temple of Luxor, entitled *Le Temple de l'homme* (1957).

In a paper to the Twenty-fifth International Congress of Orientalists at Moscow, Badawy gave a summary of some of his ideas on "the relation of

the parts to the whole and the interrelation between the different elements" (Unpublished Mss.). Egyptian complexes, such as the large New Kingdom temples which grew by accretion — new parts being added in front of the earlier structures — continued to follow exactly the same system of proportions, even if separated by several hundred years. Badawy describes as "harmonic design" the system based on certain recurrent dimensions occurring in ground plan and section which can be expressed by a constructional diagram using isosceles triangles and squares. "Both systems, the arithmetic of Fibonacci and the graphic system of the golden section, were combined to achieve harmonic design in architecture according to fixed rules capable of being transmitted to teaching without the help of writing."

In our period many architects, still imbued with a nineteenth-century romantic individualism, believe that their personal artistic instincts do not need the control of any system of proportions. Some, but comparatively few, work, like Mies van der Rohe, with a basic additive module recurring throughout a structure. Le Corbusier, like Picasso or Miró, has an inner relation with artistic experiences which has long vanished from the work of the *routinier* painter or architect. He has derived from the subconscious his system of the Modulor, combining the **483** arithmetic and geometric systems of Fibonacci and the golden section adapted to the dimensions of the human figure and, from there, applied to architectural proportions. He has consistently employed this system in his architecture.

The cubit as a basis of architectural proportions

As we mentioned earlier, the Egyptians invented grids, based on the dimensions **485 ff** of the human hand, to establish the correct proportions of the human body in painting, relief, and sculpture. Proportions in architecture were based on the **484** length of the human forearm: the cubit. Thus Egyptian architecture is a projection of the proportions of the human body and limbs transposed into a larger — but still human — scale. This is especially true of the great temples. Man and man's artifacts were closely interlocked.

Badawy carefully limited himself to the methodological use of proportions leading to a "harmonic system of architectural design" (1961),

just as Iversen followed through the use of a squared grid to determine the proportions of the human body (1955, p. 33).

Schwaller de Lubicz stressed the symbolic implications inherent in the proportional organization of the whole of a great temple. The graphic analysis in his second volume is of superb precision. One may not be willing to go so far as to compare the meaning of a Christian cathedral with the profoundly different religious outlook of the Egyptians. One may also feel extremely cautious about accepting the idea that different parts of the Luxor temple reflect different stages of human growth: that the proportions of the innermost sanctuary represent those of a *nouveau-né* or that one can find the proportions of an adult skeleton in the entire complex, including its latest additions (1957: II, pl. XV; III, pp. 57-62).

Schwaller de Lubicz's volumes are not normally found in the bibliography of any serious Egyptologist, yet his fundamental point of the relations between symbolic meaning and the use of proportions cannot in the long run be excluded from earnest consideration. His influence upon Robichon and Varille, who were particularly concerned with the cosmic implications of the Egyptian temple, led to a further refinement of Egyptian excavations and was a contribution to the neglected studies of the symbolism which permeates all Egyptian architecture, down to the setting of every stone.

PART XII THE FIRST ARCHITECTURAL SPACE CONCEPTION

THE INTANGIBILITY OF SPACE

It is possible to give physical limits to space, but by its nature, space is limitless and intangible. Space dissolves in darkness and evaporates in infinity. To become visible, space must acquire form and boundaries either from nature or by the hand of man.

The intangible phenomenon of space has always fascinated man — even disturbed **1:514 ff** him. Like abstraction and the symbol, the origin of the concept of space lies embedded in Greek thought. Archytas, one of the Pythagoreans, wrote on the nature of space, though his work is lost except for a few fragments. Plato's *Timaeus,* which contains his deepest mythopoeic thinking, deals with the construction of the universe and develops a cosmology. Plato transports us to a point "before the beginning of years," when time was not and "the earth was without form and void" (tr. Bury, 1952, introduction). Involuntarily one senses the influence of Egyptian thought, well known to Plato from his long stay in Heliopolis. Gradually we follow the process by which the cosmos was developed out of chaos.

Plato conducts us with the aid of his two concepts, the eternal and the temporal, here called the model and the copy: "One of them being assumed as a Model Form, intelligible and ever uniformly existent, and the second as the model's Copy, subject to becoming and visible." But here, he says, "the argument seems to compel us" to add to these two images a third: "a Form that is baffling and obscure. What essential property, then, are we to conceive it to possess? This in particular, that it should be the receptacle, and as it were the nurse, of all Becoming" (49A-B). Later he adds: "While it is always receiving all things, nowhere and in no wise does it assume any shape similar to any of the things that enter into it. For it is laid down by nature as a moulding stuff for everything, being moved and marked by the entering figures, and because of them it appears different at different times" (50 C).

Plato never actually employs the word "space," but we concur in the view, held by many scholars of ancient philosophy, that the substance of which he is speaking was in fact no other than space, "the Receptacle of this

generated world," which if we describe as "invisible and unshaped, all-receptive and in some most perplexing and most baffling way partaking of the intelligible, we shall describe her truly" (*51*A-B).

One can sense here Plato's hesitancy before the intangibility of this "essential property" which is the "receptacle ... of all Becoming." In this "invisible and unshaped" medium he places all things that emerge and that change. This is the first time man attempted to define the intangible phenomenon of space. The approach is a metaphysical one, but it also encompasses the psychic content of space.

In the realm of architecture, space is experienced by means of observation, in which the senses of sight and touch are interlocked. In the first instance this is a simple statement of fact. But through the relations of the most diverse elements and the degree of their emphasis — straight or curving lines, planes, structures, massivity, proportions, forms of all kinds — a matter of simple physical observation can be transposed to another sphere. These diverse elements are seen suddenly as a single entity, as a oneness imbued with spiritual qualities. This transformation of a physical fact into an emotional experience derives from a higher level of our faculty of abstraction.

ARCHITECTURAL SPACE CONCEPTION

It is light that induces the sensation of space. Space is annihilated by darkness. Light and space are inseparable.

If light is eliminated, the emotional content of space disappears, becomes impossible to apprehend. In the dark there is no difference between the emotional evaluation of a chasm and of a highly modeled interior.

The essence of space lies in the interaction of the elements that confine it. The diverse ways in which these parts have been formed and related to one another is the substance of the history of architecture.

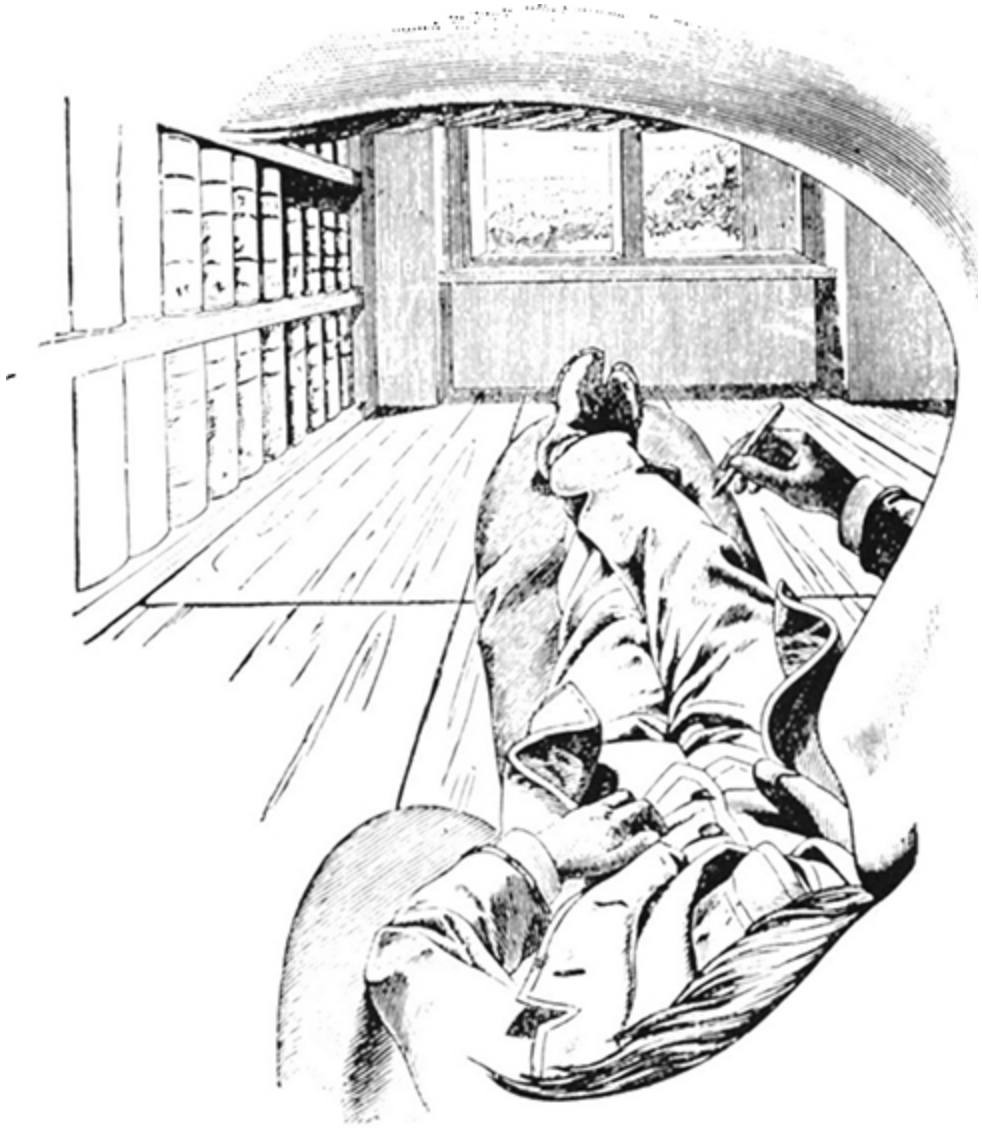
Though space is intangible, between man and space there is a psychic relationship. This changes continuously, sometimes in nuances, sometimes fundamentally. The relation between man and man-made space appears in his space conception. Like his attitude toward the state and his attitude toward the world, the latter is bound up with the nature of his period. But it is possible for a certain space conception to persist over long ages and to indicate the links that bind prolonged periods together, as is the case with the Egyptian and Sumerian civilizations.

A space conception is instinctive and finds its expression in the way man places three-dimensional objects in relation to one another. For the most part, he is unconscious of the space conception to which he responds. This is why the space conception of a period can give insight into man's attitude toward the cosmos, toward nature, and toward eternity.

Recently the exact sciences also appear to have found the need to investigate changes in space conception "and its corresponding theories" in connection with the history of scientific thought and physics. In the preface to *Concepts of Space* Max Jammer writes: *"It is my firm conviction* that the study of the history of scientific thought is most essential to a full understanding of the various aspects and achievements of modern culture. Such understanding is not to be reached by dealing with the problems of priority in the history of discoveries, the details of the chronology of inventions, or even the juxtaposition of all the histories of the particular sciences. It is the history of scientific thought in its broadest perspective

against the cultural background of the period which has decisive importance for the modern mind.

"The concept of space, in spite of its fundamental role in physics and philosophy, has never been treated from such a historical point of view" (1954, pp. v f.).



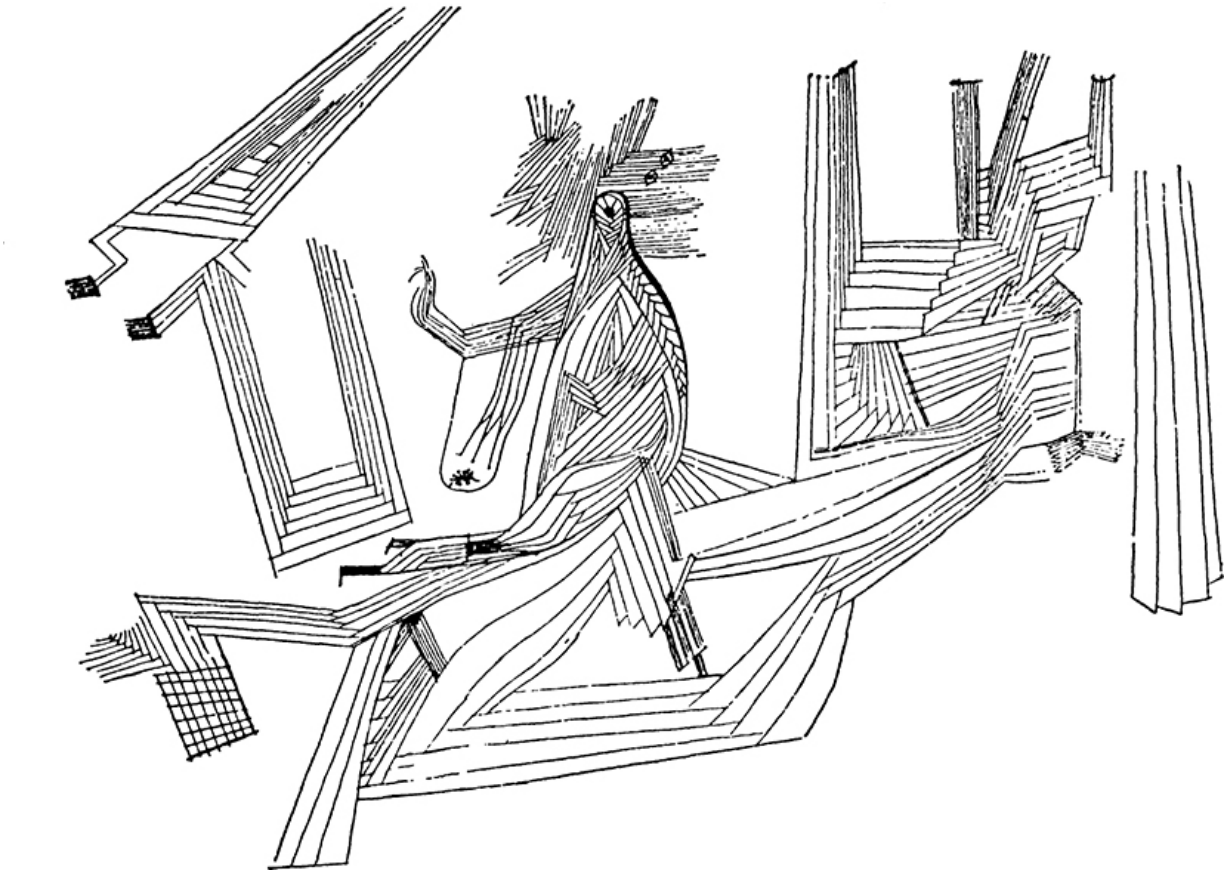
ONE-EYED FIELD OF VISION OF RECUMBENT MAN: *Lying outstretched upon a couch, his view framed by the arch of his eyebrows, his nose, and his mustache. Foreshortened perspective is based upon a a single-vision static viewpoint. Drawing by Mach*

Static and dynamic space

Ernst Mach, the Viennese physicist and mathematician, had, as early as 1885, gone deeply into the space sensitivity of the eye and the relation of visual apperceptions to each other and to psychical elements. In a famous sketch he depicted **left** the static field of vision of a person lying at ease. In foreshortened perspective he drew a man lying upon a sofa, his field of vision framed by the arch of his eyebrows, his nose, and his mustache. Eyebrows, nose, and mustache, accordingly, appear gigantic. As in the early Renaissance, the spatial depth is indicated by the progressive foreshortening of the limbs, and even the drawing hand is already dwarfed.

Dynamic space

It immediately became apparent that the static viewpoint of someone lying upon a sofa was insufficient. It began to be recognized that the natural field of vision was dynamic — in other words, that the perception of space could not be bound to a single viewpoint. Movement played a decisive role in the perception of space. Many theories were developed in this context. One of them conceived perception of space (seeing in depth) as the perception of a time difference (Arnold, 1949, p. 26). Another measured reaction time: the time that elapses between the onset of a stimulus and the corresponding bodily action (Pauli, 1941-42, pp. 177-92).



PAUL KLEE: *"Die Scene mit der Laufenden." Elimination of the single viewpoint and introduction of a dynamic perception of space through the roving eye of a moving observer. Drawing, 1925*

It would be most interesting to have a means of gauging dynamically moving space as it appears when walking through it. This would involve the continuous, difficult-to-grasp changes of space and of the object within it that come into the field of vision of a walking man. These have been symbolically expressed by contemporary artists.

497 In Paul Klee's *Scene mit der Laufenden* (Scene with Running Woman; 1925), he did not lay the main emphasis upon the successive phases of her bodily movements passing through time. This had been done by the Futurists, Giacomo Balla for example, or Marcel Duchamp in his *Nude Descending a Staircase* (1912). Klee went a step further. He incorporated changes in the form of the surrounding space while it was being crossed. The space and the running figure depict this psychic-physical reality as an overlapping sequence of phases. This is a dynamic experience of space: a dynamic perception of space in depth. It moves beyond the realm of mathematical analysis of movement. An increasing spatial

experience is expressed in the same way as the transparent organic growth of a fruit in another of Klee's pictures.

From the time of Paolo Uccello — that early Renaissance master of foreshortened perspective — to Mach's eyebrows and mustache, distance in space was conceived of as seen from a static viewpoint.

In the contemporary conception of space, interest is concentrated upon the roving viewpoint of the moving observer: space which is absorbed by the mind in continuous dynamic movement.

Similar observations have been made by the neurologists. According to the neurologist V. von Weizsäcker, perception has no absolute and permanent frame of reference (1943, p. 16). "We have had to learn meanwhile, that we cannot perceive or even think of Nature without bringing in something which is simply our own individual and highly personal truth. Today the individual approach and personification have become governing conditions of what was formerly considered objective Nature, wholly independent of man. We do not only exist in time and space, but time and space also exist within us, and there is therefore an inevitable interconnection between inner and outer agitation" (p. 27).

This assertion that space and time also exist within us, that we are not merely immersed in them, and that there exists an interrelation "between inner and outer agitation" is the best explanation of Klee's *Scene mit der Laufenden.* The **497** picture is not simply concerned with the sequential development of single or composite movements, such as the stages of walking, as the Futurists brought them into consciousness through transparent and kinetic analyses. It is concerned with the simultaneous presentation of the dynamic space that comes into being through the changing relations of space to the person moving through it.

This introduction of the changes noticed simultaneously by the observer and the observed has also an important role to play in architectural space conception.

Research into architectural space

Consideration of space as a material for artistic representation arose in the Renaissance, the moment rationally scientific perspective drawing made it possible to bring space onto a two-dimensional picture plane. Although this

consideration had the task of submitting the reception of perspective to a subtly intuitive refinement, it always dealt in perspective in depth. In a university lecture Hans Jantzen followed this development through four hundred years (1938) throughout which interest centered upon the representation of space in painting. But in 1890 a strong impetus arose to bring architectural space into consideration. Leading art historians began to find the analysis of formal shapes insufficient and too coarse. They recognized Plato's space, as a receptacle of all becoming, to be an essential ingredient of architectural expression.

The first definite investigations into space as a constituent element of visual art occurred in the last decade of the nineteenth century. They were made by an Austrian, Alois Riegl (1858-1905), a Swiss, Heinrich Wölfflin (1864-1946), and a German, August Schmarsow (1853-1936). Each of these three great scholars in his own fashion contributed to advances in this field.

Riegl made far-reaching contributions, despite the fact that he died very young. His was the most universal conception. Few conceptions have been so fruitful for research in art history as his conception of the *Kunstwollen.* This was the battering-ram used against the leading materialistic aesthetic of Gottfried Semper, which had held the stage for sixty years. Riegl was, as he stated in his *Spätrömische Kunst-Industrie,* first published in 1901 in a little-known professional journal, "so far as I can see the first . . . who has perceived art as the outcome of a definite and conscious *Kunstwollen* [artistic volition] which asserts itself in conflict with the requirements of custom, material goods, and technical skills" (1927, p. 9). The excitement resulting from the work of these three men was limited to the German-speaking world. Art historians and archaeologists from other countries, on both sides of the Atlantic, considered, and in part still consider, preoccupation with so intangible a subject as space to fall outside the confines of earnest scholarship. In Italy it is only in recent years that space has become recognized as a constituent element of architecture.

In 1888 Wolfflin, in *Renaissance und Barock,* had set the tone by announcing the meaning of space as something absolute, a note which had never been heard before. In this early work, whose language places it among those rare publications on art history which do not age with time, a space conception is nowhere directly mentioned, but it pervades the entire work. Again and again the inseparable connection of "space forms" with the "life of a period" is pointed out and the effect of intangible form upon the

psychic interpretation of spatial form demonstrated. One may also suggest that the lean strength of Wölfflin's language had great influence on Riegl and Schmarsow. Wölfflin was a direct disciple of Jacob Burckhardt. He stood nearest to the latter in his inner conception of the high Renaissance, though from the beginning Wolfflin linked this with the baroque. He was perhaps by nature the last Renaissance man. He sought throughout his life for quietness and composed dignity, and his main interest centered in the extension of the Renaissance into the nineteenth century. This was the period in which were rooted the five pairs of ideas set forward in so masterly a manner in his *Kunstgeschichtliche Grundbegriffe* (1915).

Though Riegl was primarily concerned with the minor art of Roman provinces, his historic vision ranged over a far wider field even from the start, and broadened into universality. He traced *Raumbildung* — formation of space — from the pyramids to early Christian art. For the first time an art historian dared to observe Egyptian architecture with other eyes than those of the archaeologist. For this he used the polarized notions of vision and touch: optic and haptic. These refer back to a general functioning of the senses and were not derived from a specific style. The touch of an object gives it its plastic form. Vision brings in the optical concept of its appearance. This vision/touch (optic/haptic) categorization deals with a generalized human apperception of the external world and is capable of universal application.

In fact — though much later — the same notion was employed in modern mathematics. Gilbert de B. Robinson defined it as follows: "Our concept of *physical space* is the result of a desire to order our experiences of the external world. . . . Our experience of the external world comes to us through our senses, and of these our sense of *vision* and our sense of *touch* seem to be the most significant" (1946, p. 5).

Riegl's notion of space is equally fruitful, though his exploration of it is rather hampered by tradition. He assumes the observer of space to be motionless, and thus to have a static space conception like that defined and presented by Mach in 1886. The ideal observer is thus nailed to a fixed viewpoint, both for interior and for exterior space.

The third of these trail blazers, Schmarsow, considered the limitation to a single viewpoint too one-sided and not sensitive enough to human perception. To perceive an object fully, the observer must have a continually changing viewpoint. Already in 1893, in his opening lecture at Leipzig,

"The Nature of Research into Architectural Space," Schmarsow had glimpsed the innermost nature of the formation of architectural space. In his main work on the fundamental concepts of art (1905), he states definitely: "Both the basis and the unalterable determinant in the definition of architecture as art must thus be *its formation of space* (Raumbildung). Architecture is a space-former from start to finish: its nature is created by this notion" (p. 184; italics mine).

In this work Schmarsow analyzes some of Riegl's beliefs in a not unfruitful polemic, saying in his foreword: "Because of its critical discussions, I attach myself, in the first instance, to the highly important and learned work of Alois Riegl, *Spätrömische Kunst-Industrie* (Vienna, 1901), since this, following the stated intention of its author (p. 139), is mainly devoted to a discussion of the principal problems" (p. iv).

Schmarsow is incited to develop a productive analysis, and he widens the field by bringing in a dynamic instead of a static observation of space. A building must be circled — "wandered around" — and its interior space must be "wandered through": a requirement also constantly emphasized in Wölfflin's lectures. As he expressed it orally, architecture demands to be gone through. Schmarsow was the first to bring definitely to the fore the dynamic conception of shaped spaces. We shall see that this concept leads us to a positive evaluation of the first architectural space conception which was not accessible to Riegl, and which occurred long before scientists had recognized the dynamic process of vision and linked it with the component of time.

If Riegl had laid the foundation for the comprehension of a work of art in *Kunstwollen,* and for a work of architecture in touch and vision, Schmarsow took the initiative in broadening it. It is completely wrong to see the teaching of Wölfflin, Riegl, and Schmarsow as purely formalistic, physiological observations, as has occasionally happened. Riegl's notion of *Kunstwollen* and Wölfflin's *Lebensgefühl* (feeling for life; vitality) should make this clear enough. They all sought, in their own way, to encompass the total structure of a period.

A space conception is but the disclosure of architectural intent. The architecture of the first high civilizations, which is everywhere saturated with symbolism and mystical meaning, can only be comprehended when related to its space conception.

SPACE CONCEPTION IN PREHISTORY AND THE ARCHAIC CIVILIZATIONS

We have sought gradually to bring out those elements whose combination built up the first space conception: abstraction, the supremacy of the vertical, the plane surface, volumes in space. These things, susceptible to vision and touch, were also fraught with symbolic meanings that are far from simple. As so often **Part II** in the archaic high civilizations, they are pluralistic, they have manifold meanings. On the one hand their symbolic background was bound up with a grandiose **396 ff** cosmic outlook: with the movements of the stars, with the eternal cycle of the day, with constant wandering and movement. On the other hand they were tied **320 ff** to an exceedingly rigid social hierarchy, which was again drawn into the cosmic aspect.

The entire archaic outlook, like that of prehistory, assumed the oneness and **33 ff** inseparability of the world. One world, in which the animal was part of the community, rising even to divinity, and not yet regarded as an inferior creature.

Despite this, there is a profound difference between the space conception of **1: Part VI** prehistory and that of the high civilizations. We questioned earlier what differentiated the space conception of prehistory from that of today.

Primeval art was a rock art. Caverns and cliffs have curving surfaces that change continually in form and direction. This multiplicity of form, this infinite **1:529 ff** freedom of directions, these endlessly changing surfaces were part of the being of primeval art, which was closer to nature than any other but yet knew how to allow for human individuality.

The freedom of surfaces corresponded with the freedom of direction. Vertical and horizontal had not yet achieved predominance. The eyes of primeval man, like those of contemporary primitives (the Eskimo, for example), held all directions **1:522** in equal esteem. Representations that are to our eyes vertical — animals that seem to be falling or standing on their heads — were not so intended. They cannot be interpreted on the

principles of vertical co-ordination. To primitive eyes, **1:417** such animals are simply standing near one another.

The freedom of approach to all directions and surfaces, like the frequent transparent, interpenetrated animals, has long enough misled people into seeing cavern **1:517** art as chaotic and lacking all composition. There is no need to discuss this here. Of recent years, French scholars have been making statistical investigations **1:518** of the laws of composition, the division and combination of animal types and animal groups, and have discovered an astounding accordance in their placement at particular points in the caverns. This does not result from following rational laws of composition in our sense.

The consequences of the rigid hierarchical organization of archaic society can be recognized also in the supremacy of the vertical, selected from among the **Part XI** multiplicity of directions. It was the vertical which symbolized the human posture in contrast to that of the animal: man was beginning to believe himself to be ruler of the earth.

Just as one direction was chosen from all others to become an organizing principle, so also the endless variety of rock surfaces became one — one smooth unbroken plane. This abstraction is also applicable to Sumer, but it was only in Egypt that the rigorously even surface became exclusive: the immaculate absolutism of the planes of the pyramids, with their total rejection of any detailing. The plane surface never disappeared from Egyptian architecture or art, either in the temples of the New Kingdom or in the sunken reliefs, whose delicate articulation, **153 ff** woven directly into the surface, was so close to the Egyptian temperament.

The pure surfaces become volumes: pyramids, pylons, obelisks. From the standpoint of authoritative architecture as it developed after the Roman vaulted structures, these volumes do not fall within the realm of architecture. The highest aim of Western architecture has been the formation of hollowed-out space: interior space. This was Riegl's view. He had always in mind a domed space, which best expressed in monumental form the hollowing-out of space. But interior space of this kind was unknown to the architecture of the first high civilizations. Their attitude toward the vaulting problem can be briefly stated.

At the origin of architecture — in Egypt as well as in Mesopotamia — there was a period when the house of god, the temple, was conceived as an interior space **190 ff** similar to the newly developed dwelling house. Still,

for Riegl, later Egyptian art was a spaceless art: “The architectural ideal of ancient Egypt is most purely expressed in that typical mortuary monument, the pyramid. Before whichever of its four sides the observer places himself, his eyes are accorded just the unified plane of an equilateral triangle, whose sharply cutoff sides in no way suggest their union with a three-dimensional body behind.” Under the spell of the fixed viewpoint, Riegl could only see the single intangible surfaces and came to the conclusion that “the pyramid is more a picture than a structure” (1927, p. 36).

This is where Schmarsow enters. From the start, he had been concerned with the changing viewpoint and, consequently, a dynamic apperception of space: “The less we are inclined to behave as one-eyed creatures, satisfied with a single viewpoint, the more we shall become accustomed to changing our viewpoints so as to encompass the material individuality of things from all possible angles. ... In Riegl’s analysis the main thing, bodily substance and verticality . . . eluded him” (1905, pp. 16-17).

Riegl had recognized the great importance of the plane surfaces as the constituent element of the pyramid. His further conclusion that the significance of these planes lay in their intangibility can no longer be accepted.

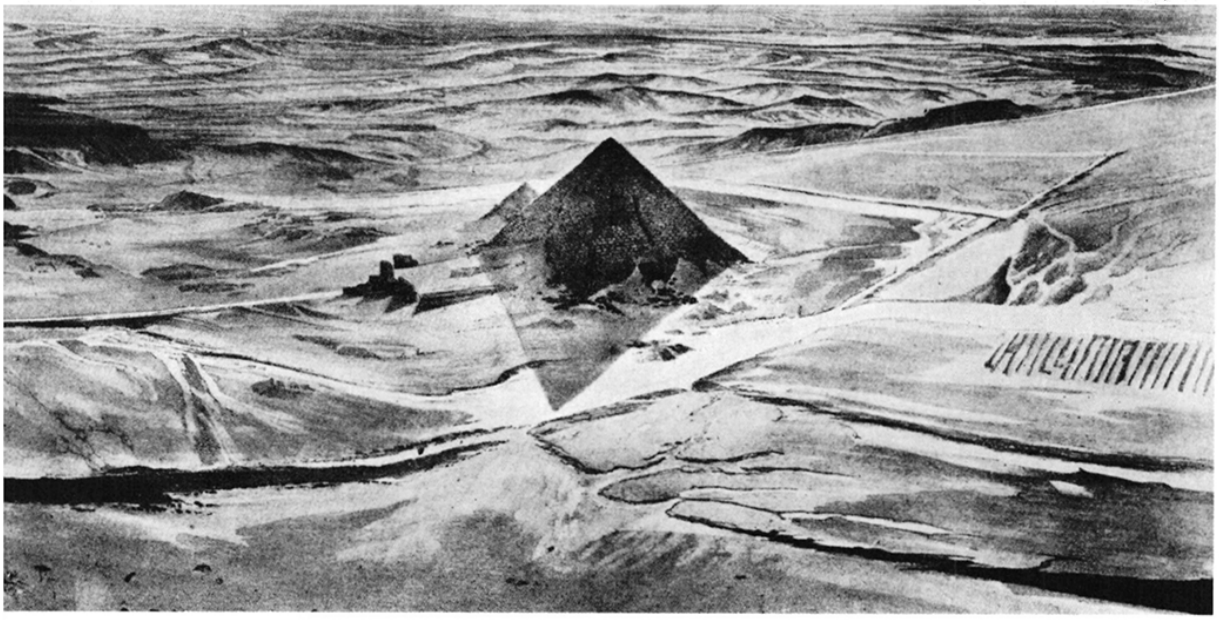
It is part of our nature that every human product, no matter what it is, must be bound to its own time and place. It may, however, contain seeds capable of later development. These exist in astonishing number in the work of Riegl. What has changed is our approach to surfaces, volumes, and space.

Pyramids, planes, and volumes

The pyramids stand on the rim of the desert. Below them stretches the fertile **right** valley, behind them a limitless waste of sand. Life and death, an exuberant fertility and an eternally sterile land, come together without compromise.

In one respect the pyramids are unique. No later period has ever attempted to make use of so subtle a simplicity to express its irrepressible urge to link human fate with eternity. It is this absolute simplicity and perfect precision that transforms the logic of numbers into enigma and mystery.

The enormous, highly polished triangular planes repel any disturbance of the dead. The pyramids were undisturbable symbols, seats of the god-kings. Their huge, immaculate surfaces formed a mirror for the ceaselessly changing atmosphere. They displayed what the eye only partially perceives. They reflected all that passes between earth and sky — all the infinite, delicate changes of the moving hours. They gather the light even today, though their surfaces are now rough and granular. The play of ever-changing light imbues them with eternal motion. Their color and form passes through every phase: almost complete dematerialization in the midday glare, enormous weightiness in the evening **257 col** shadows, a black triangular plane soaring vertically upward in the starlit night. **256 col**



VOLUMES IN SPACE: *The cosmic unity between pyramid, sky, and the limitless desert. From Lepsius*

An unbiased eye that had never beheld a pyramid — Riegl's observer, say — would not automatically complete its volume. The plane surfaces acquire an existence of their own. In reality, only one or at most two of the triangles can be perceived at one time. Through the changing light they somehow become detached from the solid body they form.

The Ka was, in a somewhat similar manner, thought to be independent of man. It was part of him and yet simultaneously apart. It could enter and

leave his body. The upward-soaring triangles of the pyramid seem to possess this same independent entity.

We have begun to understand this phenomenon. The sculptor Brancusi, explaining the ability to be simultaneously part of a body and yet separate from it, has said: “I think a true form ought to suggest infinity. The surfaces ought to look as though they went on forever, as though they proceeded out from the mass into some perfect and complete existence” (*Time,* Nov. 14, 1955, p. 88).

At the peak of the pyramid age, pyramids were seldom in isolation. The three **right** great structures at Giza are organized in a somewhat diagonal association. Their sloping surfaces operate in changing relationships and seem to release themselves from the volumes to which they are tied. The drama of this interplay only becomes apparent when one stands before the early pyramid of Medum, or Zoser's **251 col** step pyramid, long enough for their influence to be appreciated. These pyramids stand isolated in grandiose relationship to the cosmos. But the architectonic **507** power of a pyramid achieves its climax when there is an interplay of volumes.

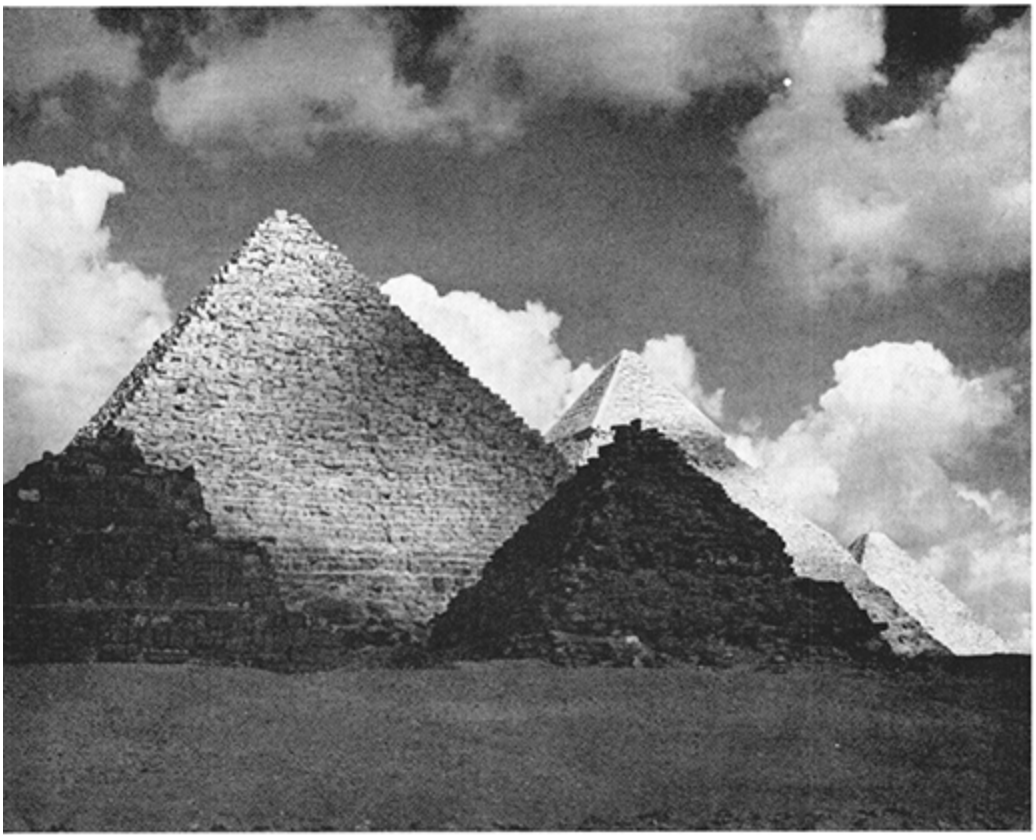
What happens is much the same as what we earlier described, in reference to Rockefeller Center, New York, 1931-37, as the “grand play of volumes and surfaces” (Giedion, 1954, p. 755), which is something quite different from the single viewpoint of the Renaissance. In Rockefeller Center the dense concentration of the slablike skyscrapers makes it easier to see how their radiating planes appear to detach themselves from the central core. But what happens is in principle the same.

Like the individual planes, the effect of the volumes is not limited to their actual physical limits. They also exert a certain radiation. Even though it cannot be directly measured, it exists like the area of an electromagnetic field. Our eyes record it and it is apparent in our psychic reaction. This occurrence is again recognized today, since the interplay of gigantic high-rise apartment houses has become a daily experience.

The notion of architecture has been extended. The conception of architecture as synonymous with the creation of interior space has seemed too narrow and has been overthrown. The same radiation that gives a hollowed-out interior space its psychic form (its *Gestalt***)** emanates also from volumes. The difference is that these do not radiate inward toward an interior space, but stream out into the cosmos.

Its close bond to the eternal presence of the cosmic is the finest bequest of Egyptian architecture. It is the most complete expression of the interconnection of cosmic and human: of eternal presence and temporal change.

The question whether the pyramids are architecture or sculpture answers itself. Indeed, the very question is rooted in the conception of architecture as synonymous with interior space. What architecture means today, Le Corbusier expressed clearly in 1.923: “Architecture being the masterly, correct, and magnificent play of masses brought together in light, the task of the architect is to vitalize the surfaces that clothe these masses" and to use the surfaces to accentuate and amplify forms (tr. 1.927, p. 37).



THE THREE PYRAMIDS OF GIZA: "*L'architecture étant le jeu savant, correct et magnifique, des volumes sous la lumière"* (*Le Corbusier*)

The first architectonic space conception is an architecture of volumes in space.

Interior space and lighting

Many elements of the ground plans of the great temples of the New Kingdom **320 ff** already existed in germinal form in the pyramid temples of the Fourth Dynasty. The first of the offering and mortuary temples, immediately alongside the pyramid, served much the same purposes as the later versions. Rites were performed and sacrifices offered in the first for the dead king, in the others to honor Amon.

258 col The glory of the New Kingdom, the hypostyle halls of the great temples, had **250 col** a forerunner in Zoser's long entrance hall, though this was not then developed further. Riegl recognized the unique feature of these covered halls. He saw that they were not interior spaces in the later accepted sense at all. No attempt was **right** made to form a space. They were filled with a forest of columns. Their dimensions and their limits could not be accurately appreciated: "The visual effect of the distant walls, ceiling, and floor would have created an impression of space which would certainly have caused the Egyptians the utmost discomfort. Thus the halls were thickly filled with a forest of close-standing supporting columns, so that all planes which could have operated as space-forming elements were dissected and split up. As a result one's impression of the space, despite its considerable **389** size, was greatly diminished, and the eye was held by impressions of the individual columns" (1927, p. 37).

Spatially, the relief-covered walls are nonexistent. The rows of columns press so closely against them as to split up their surfaces. It is scarcely possible for the eye of the camera to find a position from which to photograph the reliefs. This is why Riegl speaks of Egypt's "space phobia" (ibid.).

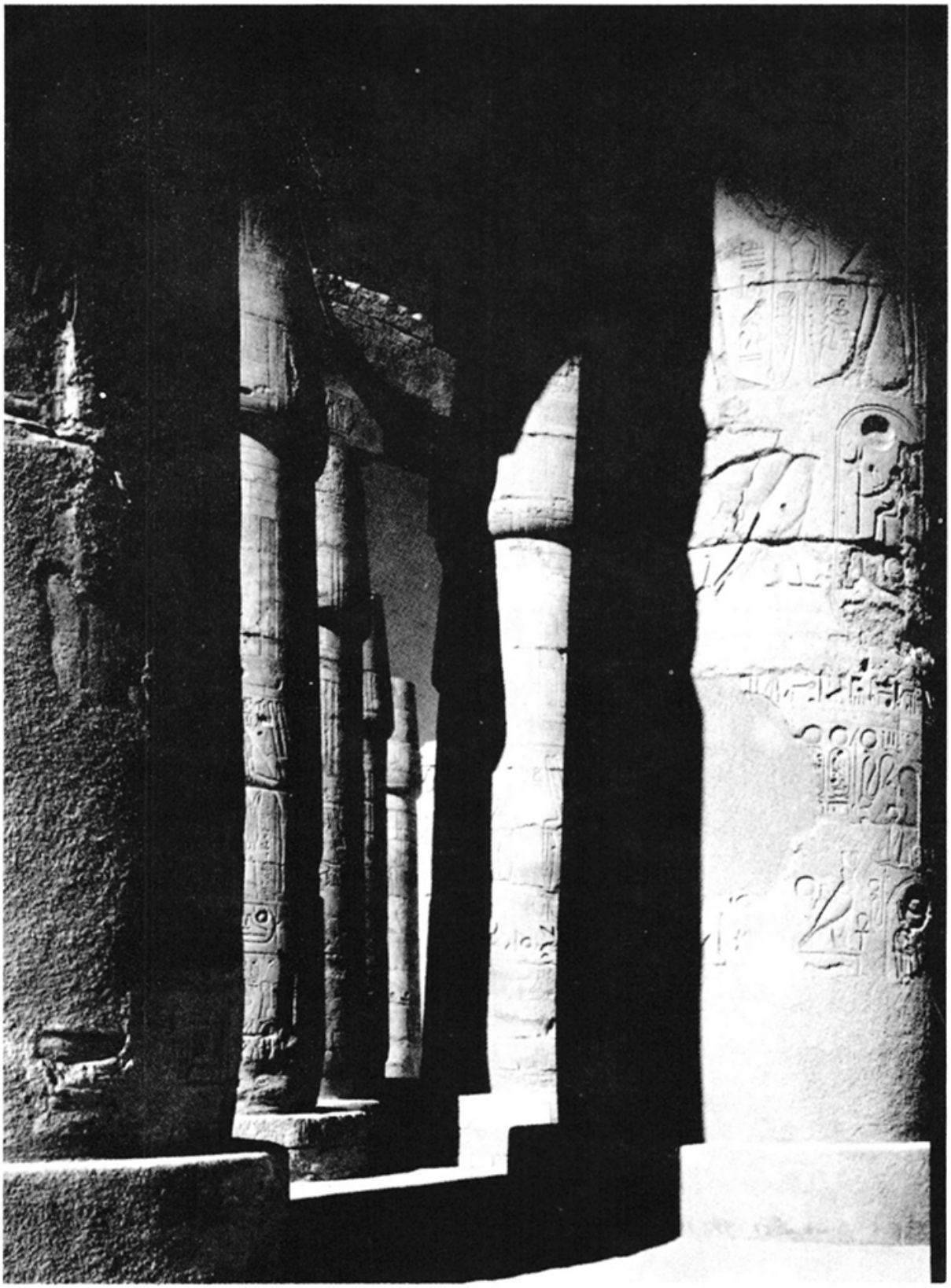
Hypostyles did not form an enclosed space for a congregation of believers, like that of a Christian basilica. They were only entered by the highest in the land and were not resting places even when used for the celebration of important **396 ff** rites. They were places of passage for the wandering of the god from shrine to shrine, and were dimly lit.

The attitude of the Egyptians toward interior space can be inferred from their handling of columns and lighting.

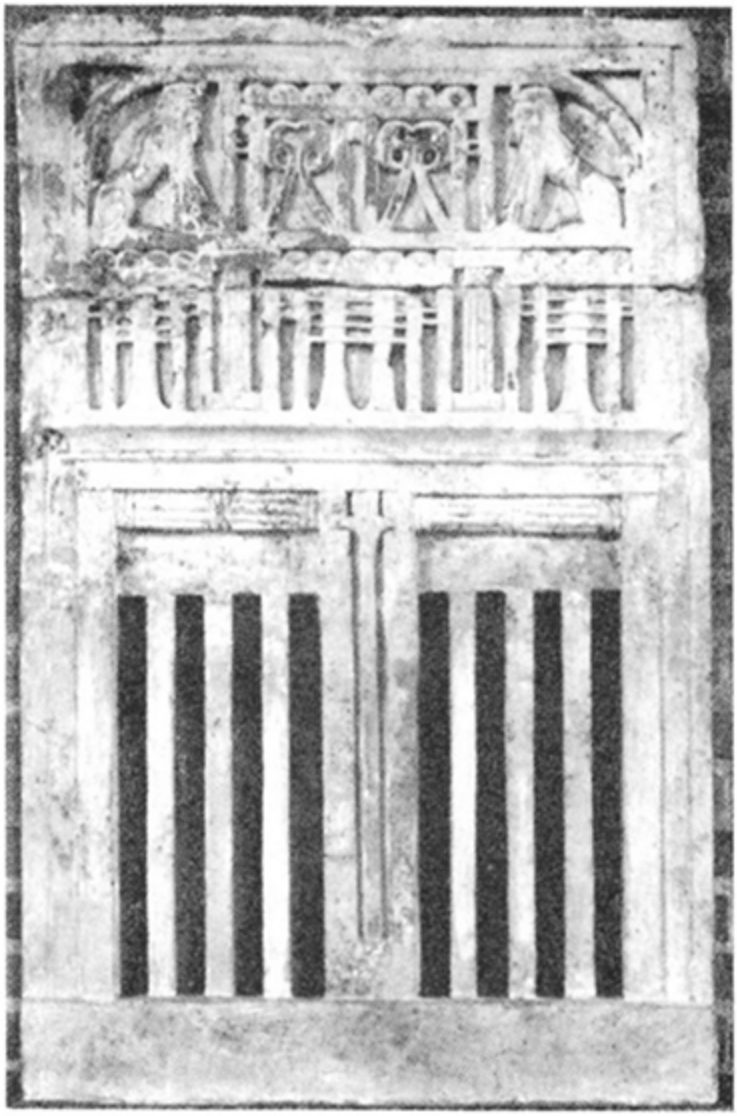
Columns

The great hypostyle halls with their forests of papyrus-columns, blue-painted ceilings, and dim lighting were not conceived as enclosed interior spaces. This is everywhere apparent from their tectonic treatment. The papyrus-columns, which **247 col, 259 col** terminate in buds or flowers, do not represent a supporting scaffolding, as columns do in Greece. Schafer once remarked that "the Egyptian columns appear as freely growing plants, without indicating that their heads act as supports. . . . The Egyptians, like the Babylonians, considered the temple ceiling as a heavenly vault. In Egypt, even Zoser's artists painted the hall ceilings with stars" (1929, p. 31).

It is also significant that the architrave was never developed further in Egypt. Its form never changed with that of the columns (Jéquier, 1924, p. 168). Col**right** umns and beams stand in an architectonic relation as supports and loads. But an aesthetic stress was never laid upon such a relation, as in Greece, where the columns openly support the temple, whose pitched roof and ornamentation strengthen its significance as the house of God.



AVERSION TO INTERIOR SPACE-GREAT HYPOSTYLE, KARNAK: *Columns of the side aisles of the great hypostyle, whose 134 colossal papyrus columns fill the void of the hall so that no interior space can develop. This was strengthened by offsetting the column centers in alternate rows*



WINDOWS FILLED WITH STONE GRILLES: *In the throne room of King Merenptah the light filtered through small slits, as in the great hypostyle at Karnak. Memphis, Nineteenth Dynasty*

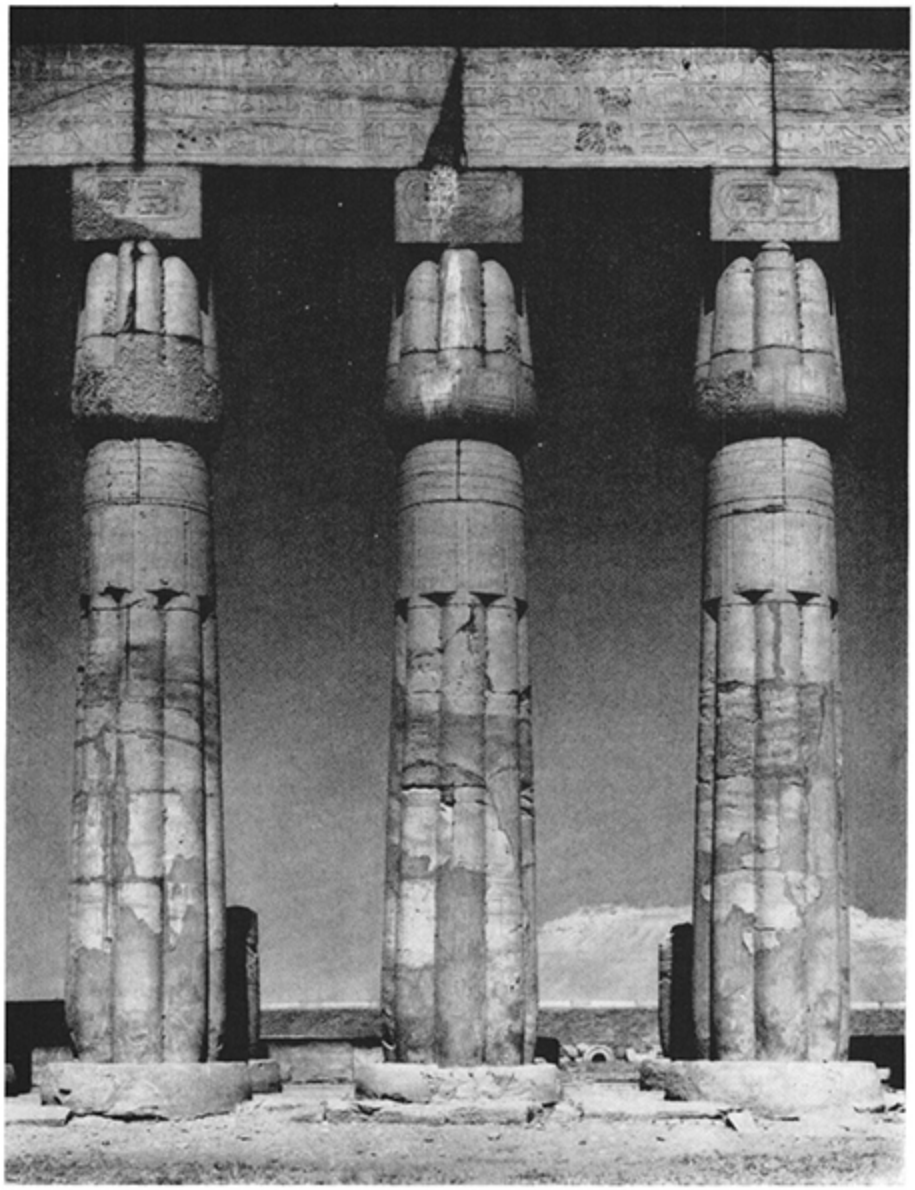
In the imagination of the Egyptians the flat-roofed hypostyle appeared open to the sky even when covered over.

Lighting

The way light is directed and modulated is of the utmost consequence for a space conception, for it is light and space-limiting forms that give flesh and

bones to an architectural complex.

From Zoser's mortuary complex to the great Ptolemaic temple at Edfu, from the beginning to the end, the Egyptians felt the need of a dimly lit, half-dark **279** space. In the first authentically constructed interior space, Zoser's entrance hall, the windows of the side walls consisted of small slits, so that only a small amount of light should penetrate. In Chephren's three-aisled valley temple, the only **326** temple from the Fourth Dynasty whose lighting can be securely established, the sun's rays also enter through narrow horizontal slits near the ceiling. Similarly, **370** in Tuthmosis Ill's festival hall at Karnak the aisle was lit only from high-placed openings, even though these were somewhat larger.



PAPYRUS-BUNDLE COLUMNS, LUXOR: *The Egyptian column lays no emphasis upon the relations of load and support, but appears to stand freely in space. West side of court of temple of Euxor*

The principle of the half-dark space was also retained in the great hypostyles. **259 col** In the hypostyle of Karnak, the aisle was lit from high, inset stone grilles with narrow vertical slits which let in the light as through a filter. There were also small holes in the ceiling blocks. The throne room of Merenptah, of the Nineteenth **510** Dynasty, in Memphis, had the same dim illumination as in earlier times.

Vaulting in the archaic civilizations

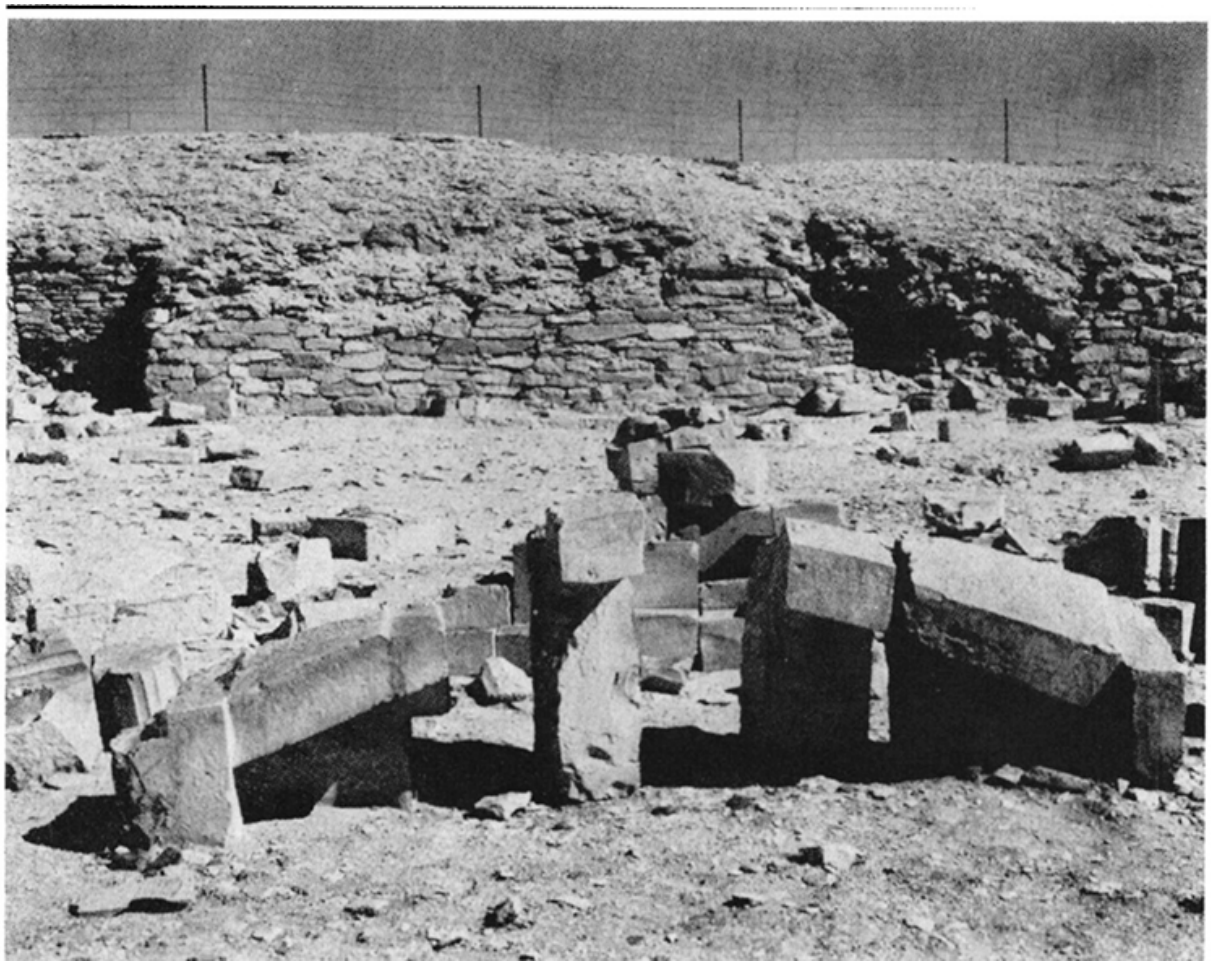
Domes and barrel vaults might easily go unmentioned here, since they played no part in the monumental architecture of the first high civilizations. Nor did they play any in Greece. The intersecting opposition of verticals and horizontals was common to all these civilizations that laid little value on interior space.

At the same time, vaults and domes were employed from the very beginning of architecture, and the oldest pointed arch, found in Eridu, goes back to the fourth millennium.

A hut of reeds or a house of clay becomes more complicated when built with rectangular, vertical walls. Reed mats or a mixture of mats and clay take on the **374** form of a curved vault far more readily than that of a flat roof at right angles to the walls. That this was not alone due to the greater ease of construction is shown by various hieroglyphs from the First Dynasty that depict a sanctuary in the shape of an animal with horns and tail. "The covering in the shape of an animal's back, becomes an irregular vault" (Badawy, 1954, p. 63).

The great buildings of Memphis must have presented a tremendous difference from these primitive huts, yet they too were roofed with wood, having walls of **288** brick and matting. The stone façades of Zoser's complex at Saqqara give some **right** notion of their appearance, ending as they do in a shallow curve stressed by a molding. These Zoser buildings terminate the earliest development. By the time of the Fourth Dynasty they had become obsolete and given place to a more direct expression of verticals and horizontals.

Even today, reed buildings of considerable size are erected in Mesopotamia, **120** like those on the Sumerian relief of the sacred stables of the goddess Inanna. A similar building appears upon a fragment of ebonite as a primitive Egyptian shrine of the First Dynasty. Almost all basic forms of vaulting — dome, barrel vault, and arch — are found here. This diminutive temple was the abode of a god or of a sacred animal. In Mesopotamia, even in the second half of the third millennium, **204** a temple was rebuilt with barrel vaulting and ventilation inlets (Tell Asmar).



CURVED PARAPET OF SHRINE: *Fragments of the curved parapet surmounting one of the shrines in the Heb-Sed court of Zoser's mortuary complex, Saqqara*

In Egypt also there are evidences of early vaulting. At the opening of our present century, J. Garstang found tombs in Upper Egypt with curved arches and barrel vaults, incorporating both the corbel vault and the segmented arch (1904, pl. 14). It is typical of the stagnant vault construction of Egypt that the Nineteenth Dynasty vaults of the Ramesseum, about twelve hundred years later, **515** were still constructed just as primitively from a double arch.

Recently, in Saqqara North, Emery found that both vaulting methods — the corbeled and the segmental — existed in very modest dimensions in the late First Dynasty. The subsidiary burial of a sacrificed servant (Tomb 3500) was roofed **273** "with a leaning-barrel vault of brick resting on a ledge. . . . With the roofing of the grave a high, vaulted superstructure was raised above it" (1.958, III, p. 102).

Even more interesting is the large barrel vault that Emery found connected with the tomb of Horus Aha (Tomb 3.357) in the so-called model estate: “One of the most extraordinary features is the long barrel vault running down the full length of the avenue between the two buildings. . . . Here, for the first time, we have evidence of the actual appearance of monumental buildings of the First Dynasty that is not based on . . . conjectural reconstruction (1954, II, p. 171).

The typical Egyptian vault, like the Sumerian, was the corbel vault in which the courses of bricks or stones project inward as they arc laid on top of one another. **305** These are found on a grand scale in the tomb chamber of the Medum pyramid, **308** and rise to an impressive height in the bent pyramid at Dahshur, which **318** contains a scries of rectangular vaults. In the Grand Gallery of the Cheops pyramid, where the walls narrow to the summit, the corbel vault attains its most monumental form. Jéquier remarked correctly: “This is not a vault but a roof greatly extended in height” (1924, p. 311).

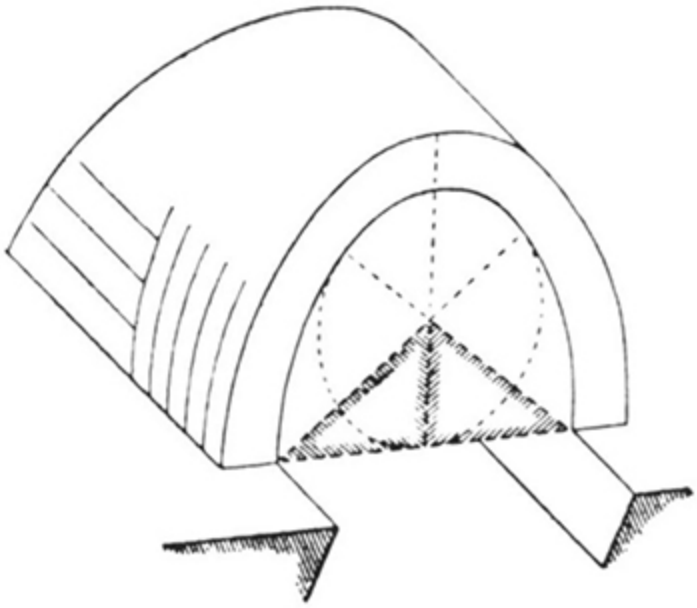
The avoidance of curved and circular forms in such monumental structures was almost inevitable in the period of the supremacy of the vertical. It is decisive that these vaulted tombs were eternally inaccessible and in perpetual darkness.

Circular domes surmounting the tomb chambers can be found in quantity in the Middle Kingdom. A single example, the tomb of Seneb at Giza, is known from the Fourth Dynasty.

Vaults remained unimportant in the New Kingdom. They were never visible from outside. They were chthonic images: caverns in the heart of the earth. The cow Hathor, the mother-goddess and protector of the dead, steps out from her **81** barrel vault on a relief in the chapel of Amenhotep III.

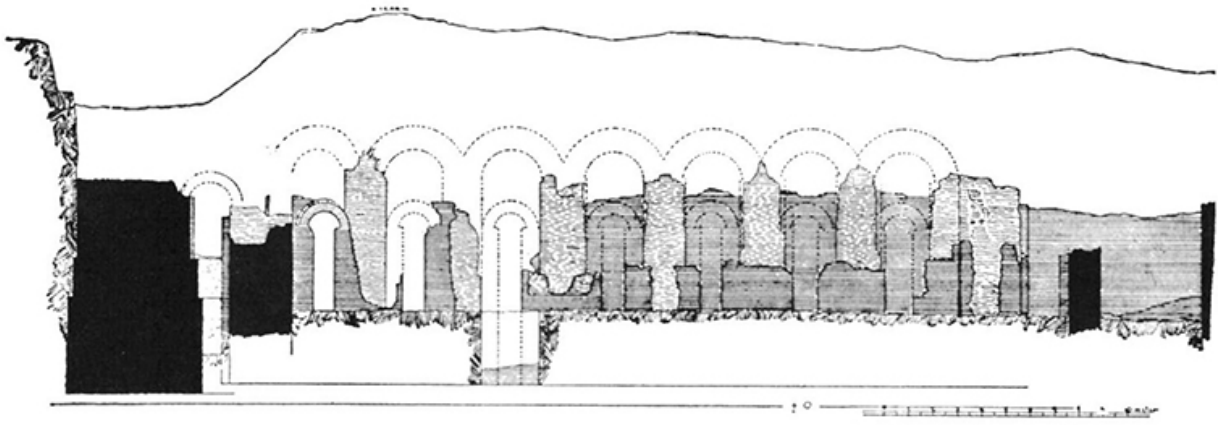
Hatshepsut also built a Hathor chapel into the rock. The vault that closed it was still a corbel vault, though the edges of the individual projecting blocks are **261 col** smoothed off to form an arch: “By diminishing those parts which project, equilibrium is assured while scarcely anything is taken from strength” (Choisy, 1904, p. 68). The same principle was later employed in the temple of Sety I at Abydos to construct vaults over seven chapels for various gods and the deified king. These adjacent barrel-vaulted chapels were also in darkness. The small square openings in the vault — in the opinion of Amice Calverley — were only for ventilation.

MUD-BRICK BARREL VAULTS OF WAREHOUSES: *The Ramesseum, mortuary temple of Ramesses II. Thebes, Nineteenth Dynasty, thirteenth century* B.C.



CONSTRUCTION OF RAMESSEUM BARREL VAULTS: *Neither the material used nor the methods of construction had changed throughout fifteen hundred years. Drawing by Choisy*

BARREL VAULTS AS SUBSTRUCTURE IN BABYLON: *Barrel vaults served as an invisible foundation for the Hanging Gardens of Semiramis. Sixth century* B.C.



HANGING GARDENS OF BABYLON: *Reconstruction. From Koldewey*

In daily life the vault served as the most convenient form of shelter. The storage chambers of the Ramesseum in Thebes are among the best preserved. Their **left** vaulting consists of sloping superimposed brick courses, each course strengthened by those lying above it. Choisy has shown this very clearly. This construction is still primitive and reminds one in principle of the double vaults and "leaning-barrel vaults" of the First Dynasty, found by Emery.

Lack of interest in the external appearance of vaults was common to all the archaic cultures. The two tiers of seven barrel vaults that supported the legendary Hanging Gardens of Babylon had a timid span of ten to eleven feet. Koldewey, **left** the excavator of Babylon, commented that the vaulting construction "shows clear signs of tentative and inexperienced work" (1913; tr. Johns, 1914, p. 94). This was in the sixth century B.C., at the end of the whole development.

This means that vaulting never rose to symbolic heights, either in Egypt or Mesopotamia. It was never externally stressed or even made visible. It remained underground, unlit. Space and light belong together. Without light space disappears. For the dome to arrive at its renowned position in architecture, light had to be brought into the interior and stress laid upon the external appearance of its monumental form. For this a completely different space conception was necessary.

The cosmic orientation of the inner court

Inner courts, unroofed enclosures within a building, can have various meanings. In a monastery of the Middle Ages, the cloister was for meditation and contemplation. The courtyard of a Gothic castle was the only open space in which a man could feel safe from attack. The courtyards of Renaissance palaces retained the tradition of building around an open space, but gave it a festive character.

The enormous apartment-house projects of the nineteenth century, wishing to make maximum use of the site, created a number of interior courts degraded to the unworthy purpose of serving as light-wells. This was the lowest ebb of a long development.

The inner court was created in Egypt, but its significance was quite different from that of later times. From the beginning to the end, the Egyptian inner court was oriented toward the cosmos.

The standard form of the pyramid, the discovery of the beauty of the human body — particularly the female body — and the formation of the inner court all took place during the rise of the Fourth Dynasty.

The large courts of Zoser's complex are not inner courts in an exact sense. **274** They are plazas surrounded by different buildings. The inner court itself first **328, 330** appears in the three mortuary temples of Cheops, Chephren, and Myccrinus. These were immediately adjacent to the pyramids. Reconstructions made by Lauer and Ricke from the scanty remnants of these three temples throw light upon their organization and meaning.

The mortuary and veneration temple, approached only by the long causeway, signified the place of transition before the dead king took on his existence as a god: "The door to the veneration temple opened the way to the world of stars in which the soul of the king appeared in the form of a heavenly deitv" (Schott, 1950, p. 199). This was symbolically expressed in architectural terms when the twilit causeway, after passing through some intervening chambers, opened into the sun-filled inner court — the only place in the whole complex which was fully open to the sky and into which light could pour unhindered. It was framed by square columns between which — in Chephren's temple — were seated statues of the king. These courts were forerunners of the great courts of the Theban temples where, more than a millennium later, they achieved their monumental form.

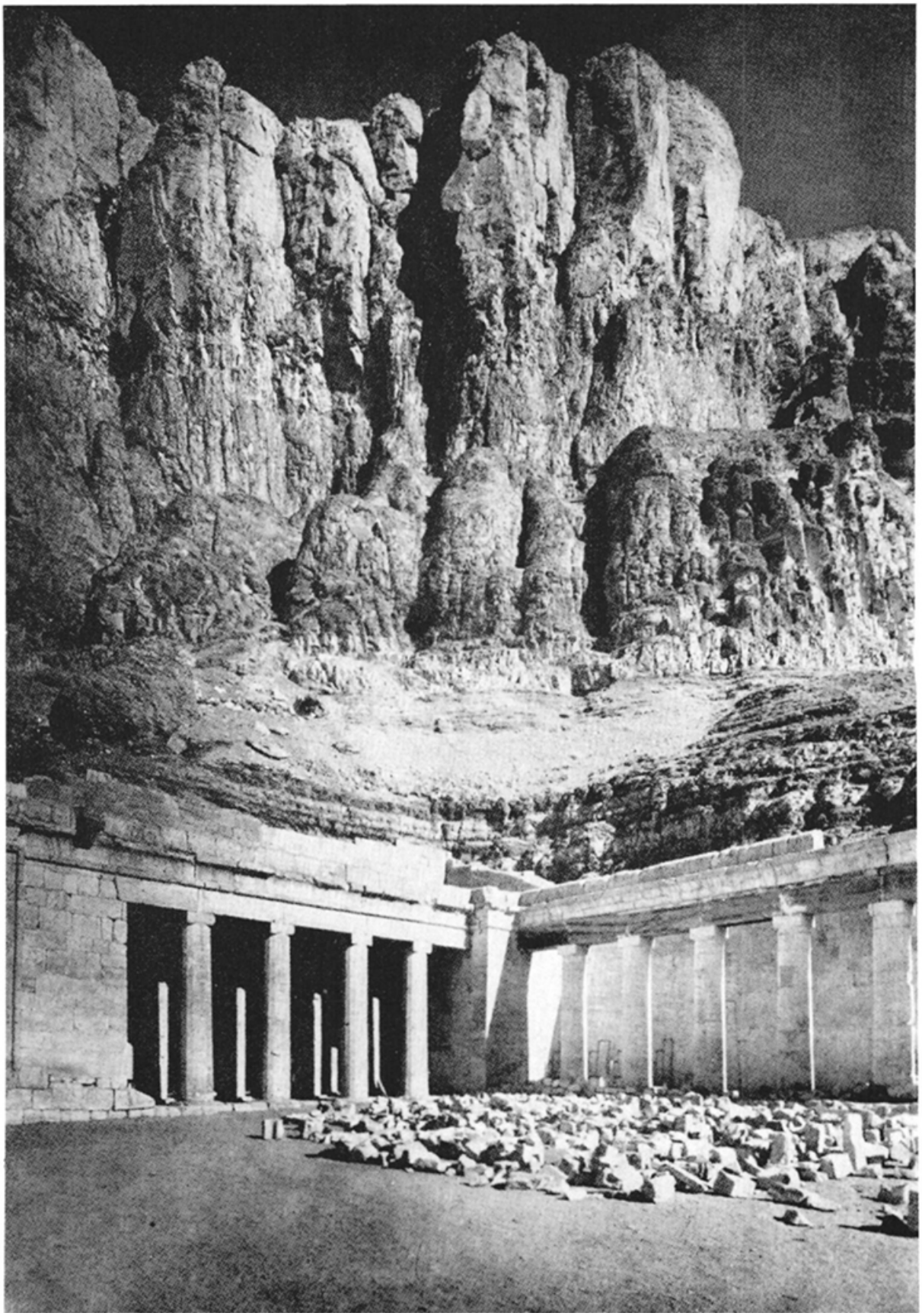
The temples of the New Kingdom had two orientations. Their horizontal orientation pointed out that existence is an eternal wandering, both in life

and death. Each part of the temple was a place of passage, except for the innermost **before 355** sanctuary in which dwelt the god himself, and even there the sacred ship lay alongside the cella, ready to carry the small wooden statue from one temple to another.

Their vertical orientation was as directly related to the cosmos in the covered hypostyle halls as in the open courts. The architecture of the rectangular court **393 f** of Amenhotep Ill's temple at Luxor shows this well. Before the sanctuary stands a roofed hypostyle with four thickly arrayed rows of papyrus-columns. The fourth wall is absent, so that the hypostyle opens directly upon the wide inner court surrounded by identical columns of rose granite, creating a unity of unusual power.

The ceilings of both the hypostyle and the columned porticoes have the same symbolic treatment. The columns arc like plants growing up to the blue sky, with no desire for expression as bearing members. This remains the case wherever temples were built, up till the end of the Ptolemaic period and into Roman times.

Earlier than this, at the beginning of the New Kingdom, Senmut achieved a daring individual solution, heightening to the utmost this upward striving of the Egyptian sanctuary. Upon the second, main terrace of Hatshepsut's mortuary **417, 431** temple at Deir el Bahari he erected two wings of columns: the west wing, divided by the wide ramp that leads up to the third terrace, and the uncompleted north **519** wing whose single row of columns forms part of the soaring cliff face. Between them an asymmetric transformation of the earlier inner court lies open to an uninterrupted view over the valley of the Nile and the great arena of cliffs.



THE COSMIC INNER COURT: *Northwest corner of second terrace of Hatshepsut's mortuary temple; the peristyle surmounted by towering rock cliffs*

The third and uppermost terrace was protected by a high wall. The visitor was led slowly upward to the entrance into an enclosed court surrounded by columns, **429** with shrines for Amon, Tuthmosis I, and Hatshepsut cut deep into the rock face. **335** This court with its sun altar is nearer to the sun sanctuary of Ne-user-ra than to the inner courts of the Fourth Dynasty. The upward thrust has been pushed to **328** its limit by a great architect who had the courage to bind unhesitatingly together the formed and the unformed by coming dangerously near to the lofty organ-pipe towers of the rock bastions.

From the close relation of abstract architectural forms and undisturbed nature comes a unity from apparently contradictory forces, as everywhere in Egyptian religion. “No Greek temple," commented Ricke, “which sought to express its active organic monumentality by contrasting its tense form with an inorganic rock wall, would be able to achieve monumentality in such a setting, no matter how large and noble its form. The form of the Egyptian temple of Hatshepsut seems to have crystallized out of the rock arena” (1944, p. 17).

The architectural wisdom of the entire complex is not limited to its visible form. Like a true poem, its strength does not lie only in an accumulation of sonorous words, but rather in the inexplicable manner in which they become part of an inner meaning. In the drive for a higher aspiration, the genius of this architect was kindled to an amalgamation of form and site. This rare achievement is not limited to certain periods. It is always one of the highest aims of architecture.

With this we reach the end of the periods that have directly concerned us here, but the problem of constancy and change does not end, and it seems inorganic to end abruptly as though these periods stood in isolation. A few fragmentary remarks therefore follow, regarding later developments.

THE THREE ARCHITECTURAL SPACE CONCEPTIONS

It is the nature of an architectural space conception to encompass a wide time span which is itself made up of a number of very different periods. An architectural space conception has a far more general nature than painting or sculpture. The architecture of Egypt and Greece shares the same space conception, but the sculpture of Egypt and Greece is fundamentally different. On the other hand, an architectural space conception embraces far greater differences within its span than the other arts do. Various strongly contrasting periods have the same basic approach to architectonic space. In this context, both the pyramids of Giza and the Acropolis at Athens express a similar relation to inner and outer space. Neither the Greeks nor the Egyptians ever developed interior space with the same intensity they expended on relating their architecture to the cosmos.

Since the beginning of architecture there have been only two basic space conceptions, as Riegl and Schmarsow recognized. A third, which embraces characteristics of both and yet, in certain ways, proceeds further than either, is now in the making.

The first stage embraced both the archaic high civilizations and also the Greek development. Sculptural objects — volumes — were placed in limitless space.

The second stage of architectural development opened in the midst of the Roman period. Interior space, and with it the whole vaulting problem, became the highest aim of architecture. In the space conception of this second stage, the notion of architectural space was almost identical with the notion of hollowedout interior space. From late antiquity on, hollowed-out space — circumscribed interior space — was the finest achievement of the art of building.

The greatest skills have been devoted to modeling interior space, and in methods of vaulting, imagination has had its greatest freedom of expression. Thus the various means of vaulting interior space indicate the evolution of this stage of architecture.

The Roman Pantheon, with its partial forerunners, marks the beginning. The second space conception encompasses the period between the building

of the great Roman vaults, such as the thermae, and the end of the eighteenth century.

A third stage of architectural development was foreshadowed at the beginning of the nineteenth century. This century acted as a transition period. Apparently all stylistic forms were indiscriminately employed, together with means of shaping interior space borrowed from every period (as Paul Frankl recognized). But in the more anonymous structures of this century there lie indications and hints that could only acquire artistic content and life with the opening of the third space conception at the beginning of our century.

The third space conception contains elements of both the first and second stages. It has discovered again the emanating properties of volumes in space, without relinquishing the modeling of interior space. The integration of these two basic elements gives rise to new ones that betoken a third stage of development.

The first architectural space conception

The first architectural space conception can be briefly summarized:

The primeval space conception, with its freedom of all directions, and the **1:514 ff** absolute absence of compromise with which it placed objects in space with no regard to their limits or to their relation with their neighbors, persisted throughout prehistoric times.

Shortly before the emergence of the historic period, a fundamental revolution occurred in the realm of vision. Instead of an unlimited number of directions, relations were restricted to one: to the vertical, with its necessary complement **Part XI** the horizontal. The beginning of architecture coincides with the rise to supremacy of the vertical, the right angle, the axis, and symmetry. The disappearance of the freedom of all directions involved the disappearance of the freedom of all surfaces. The smooth, shadowless plane surface emerged, and with it a totally new beauty.

The first architectural space conception was concerned with the emanating power of volumes, their relations with one another, and their interaction. This binds the Egyptian and Greek developments together. Both proceed outward from the volume, although the Greek temple, with its shadow-creating porticoes and its elaborately plastic entablatures and

pediments, is as different from the Egyptian temple as a flat Egyptian sunken relief is from a Greek statue fully modeled in the round.

The Egyptians also had temples with surrounding porticoes. Borchardt has examined these exhaustively, since they represent certain first steps toward the Greek temple. These Egyptian temples were either repositories for the solar boat or side chapels, and were rare.

The Greek temple stands like a crystal in space. Even so, the little regard paid to its interior space links it with its Egyptian forebears. Riegl once observed that both lacked those simplest means of communication between interior and exterior: windows (1.927, p. 39).

The inner courts of Egyptain temples, with their upward orientation, were directly related to the cosmos. Simultaneously the temples were directed earthward. They were the umbilical cord that linked historic to primeval times. For the Egyptian, the darkness of night was not anxiety-ridden, as it is for us. The Egyptian was trustful of the darkness as the area traversed each night by his sun-god upon his eternal journeying. Darkness was where contact with supernatural forces could be established. In primeval times, the most sacred symbols had been hidden in the most inaccessible parts of caverns. It was not different in the Egyptian temple. The most holy place, with the little procession-statue of the deity, was a dark cella at the farthest end of the temple. Only the Pharaoh, the son of god, and the high priest had access to it.

The Ka statues of the dead kings stood in darkness, like that of King Zoser, waiting in his serdab on the north side of his pyramid. Those visiting him could **290 ff** at most catch a gleam from his crystal eyes. The dark night of the pyramid passages, the enclosed temple sanctuary, and the twilit hypostyles express the same attitude. They explain the Egyptians' position toward interior space. Both Sumer and Egypt could construct interior space when the need arose, even vaulted space, but they had no interest in it.

Interior lighting, which became such a decisive form-giving medium in conjunction with the vaulting problems of the second space conception, was almost completely ignored by the Egyptians. Thus it is understandable that Riegl stresses the "space phobia" of the Egyptians, and that W. Worringer describes their architecture as ‘‘pre-spatial.”

The second architectural space conception

There were vaults from the time architecture began, but their powers of heightening religious and secular experience were not known until Imperial Rome. These powers appeared in conjunction with the symbolic relating of interior space to the cosmos, much as the powers of volumes in space (ziggurats and pyramids) were manifested in the first high civilizations. Under the turning cupola of Nero's ''golden house,'' which depicted the movement of the stars and is known only from coins (Boethius, 1960), the emperor was identified with the creator of the universe. A similar scene appeared in the throne room of Domitian.

The dome of Hadrian's Pantheon at the beginning of the second century signalized the complete breakthrough of the second space conception. From that time on, the concept of architectural space was almost indistinguishable from the concept of hollowed-out interior space. Since Roman times, changing periods developed vaulting to express their different emotional needs. The simple barrel vaults and domes of Hadrian's villa in Tivoli led to the development of complicated interpenetrating spaces.

Byzantium continued the development. The golden dome of the Hagia Sophia with its band of light was conceived of as having been let down from heaven, the symbolic canopy of the cosmos.

In the perforated Ravenna churches of Justinian, great interest was taken in so modeling internal lighting as to strengthen the shaping of architectural space.

In the Gothic cathedrals this was carried further, with great sublety. The modeling of light was part of their meaning.

There is an immense difference between an Egyptian temple and a Greek temple, yet both fall within the first space conception: volumes standing in space, indifference toward interior space. In the second space conception, differences appeared in construction and in the significance of the modeling of interior space. The symbolic content of the domes of the Pantheon, the Hagia Sophia, the buildings of the Renaissance, and the late-baroque domes of Borromini, Guarini, and Balthasar Neumann is vastly different, yet all of these are encompassed within the great curve of the second space conception.

Both these stages are manifested by their space conceptions. But in developments that span such great periods of time, such different places and peoples, and such different systems of society, this can only take the form of a flowing, over-all envelopment, allowing for very different expressions

of content. A many-sided evolution flows on from the pyramids to the Parthenon, though glaring contrasts spring to the eye: in scale, form, plan, and structure. The continuity of a definite space conception is uninterrupted. This is the bedrock upon which, unknown to their creators, the two great architectural epochs are founded.

Riegl's assumption that the supreme goal of architecture, since the Pantheon, has been design of interior space has not been questioned. At the same time, one cannot overlook the diversified modeling of exterior volumes by means of light and shade. This began during the first space conception, in the modeling of the Greek temples, and had its most dramatic development in the flying buttresses, perforated spires, and concave portals of the Gothic cathedrals. These were also volumes, but they acted like arrows directing the eye to the interior. Closer research into the relations of interior and exterior space in the second space conception, and into the rare cases when the whole building was treated as a sculpture, might show us some connecting links between the second and third conceptions.

The third architectural space conception

During the Renaissance, Western man was highly interested in exploring optical perspective in terms of the appearances and foreshortening of objects.

In our period, preoccupation with the appearance of objects has given way to another problem. Researches into the nature of space have replaced concentration upon physical appearance. It is probably not too much to say that every artist — certainly every sculptor — is concerned with the exploration of space and with ways of seizing hold of this intangible medium. Alberto Giacometti's striding figures create space all about them, having reduced their own forms to the utmost. The *surfaces dévelopables* of Antoine Pevsner simultaneously absorb and emanate light. Jacques Lipchitz made an early attack upon the solid volume, and dissolved his figures into fluidly curving lines of force that define simultaneously internal and external space. The dematerialization of the solid volume can now be observed in the work of almost all contemporary sculptors.

It was Alexander Archipenko who, in 1909 to 1915, indicated what was to prove the decisive direction for later sculptors. He brought out the plastic possibilities of dematerializing solid volumes. In his bronze figures solid and void, inside and outside, flow continuously into one another. He describes this as the modulation of space and the concave. His continuous intangible transitions from firmly molded convex volumes to concave interiors symbolize this modulation.

As a result of Archipenko's interaction of natural forms and abstraction, some of his statues appear to have only one breast. Though this is common in Egyptian reliefs, the reasons are quite different. The experience of two millenniums of molding interior space lie behind Archipenko's statues. His plastic interplay of interior and exterior space anticipated, to a certain degree, the architectural tendencies of the 1960's.

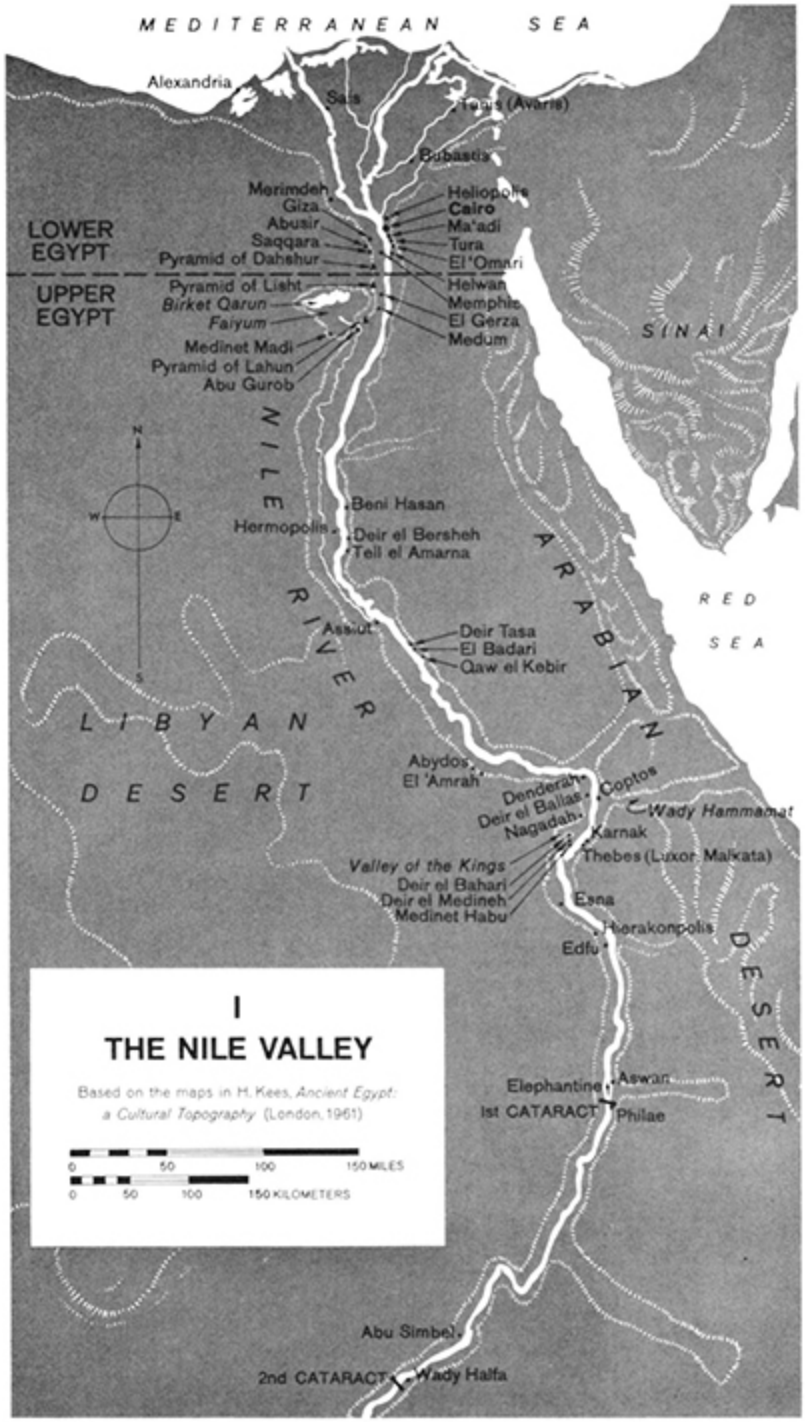
Volumes in space

Buildings, like sculptures, radiate their own spatial atmosphere, and we have again become sensitive to the emanating power of volumes in space. Today the architect has to deal with problems of relating the volumes of high and low structures. As at its first beginnings, architecture is again approaching sculpture and sculpture is approaching architecture. They are almost ready to be integrated.

Interior space

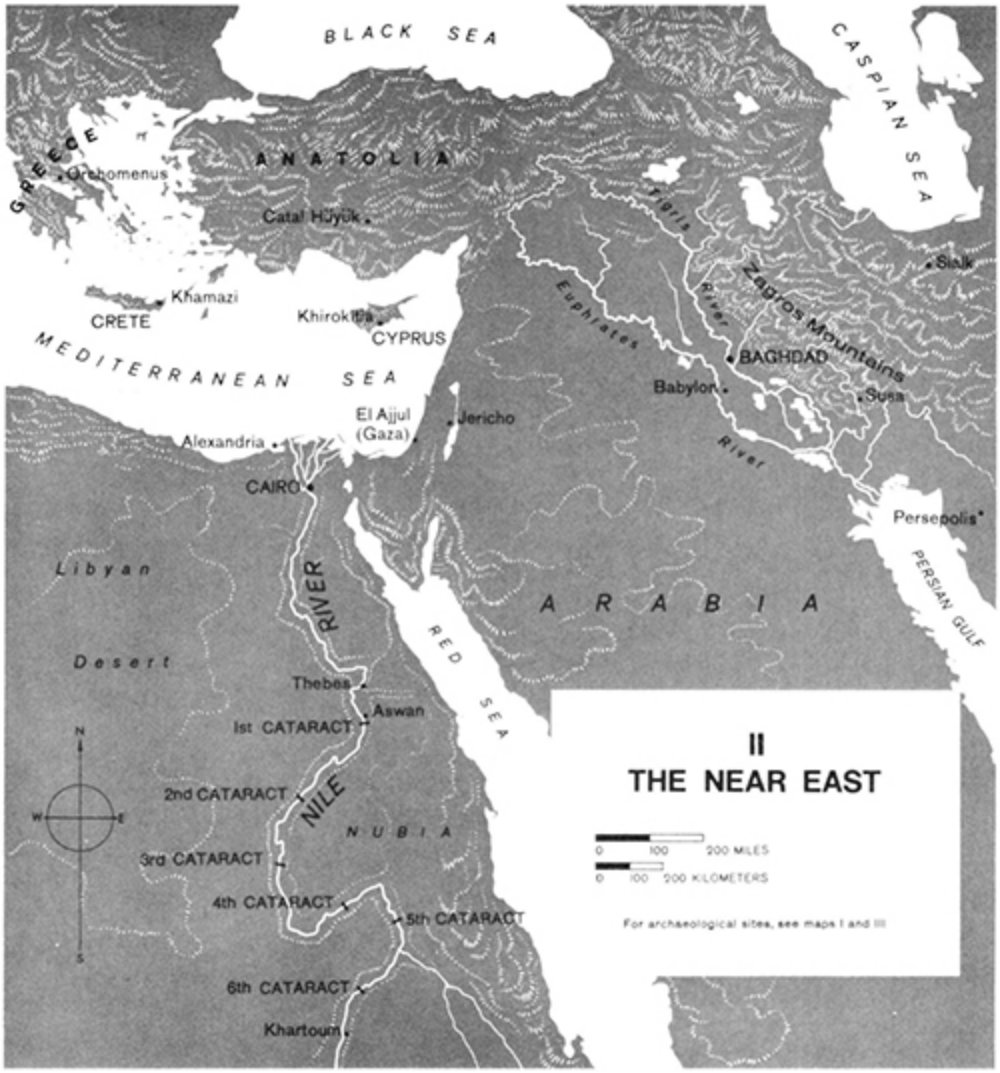
The modeling of interior space continues, but there is a profound change in the approach to its vaulting. During the second space conception, the ceiling was conceived as resting firmly upon its supporting walls. The focus of a vaulted ceiling was at its highest point, in the center. In the third space conception, the vaulted ceilings of some of its most advanced buildings seem to hover above the walls, as in Le Corbusier's pilgrimage chapel at Ronchamp (1955), where a concave ceiling rises up to the walls, the separation stressed by a narrow band of glass. In other words, the former place of maximum height is now the lowest. The curve, rising up to the walls, indicates that it does not stop there but expands farther into space, like a bird with outspread wings. Eggshell-thin concrete vaulting helps realize these new demands.

This is only one of the possibilities. Many others exist — we are only at the beginning. It is possible that our period may develop various kinds of vaulting. How the third space conception will proceed cannot be foreseen, but its general directions are apparent. The task of the historian is not merely to elucidate the past, but also to recognize the signs that lead into the future.



I
THE NILE VALLEY

Based on the maps in H. Kees, *Ancient Egypt: a Cultural Topography* (London, 1961)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CRETE
Khirokitia
CYPRUS
MEDITERRANEAN SEA
BAGHDAD
Babylon
El Ajjul (Gaza)
Jericho
Alexandria
CAIRO
Persepolis
Libyan Desert
NILE RIVER
RED SEA
ARABIA
PERSIAN GULF
Thebes
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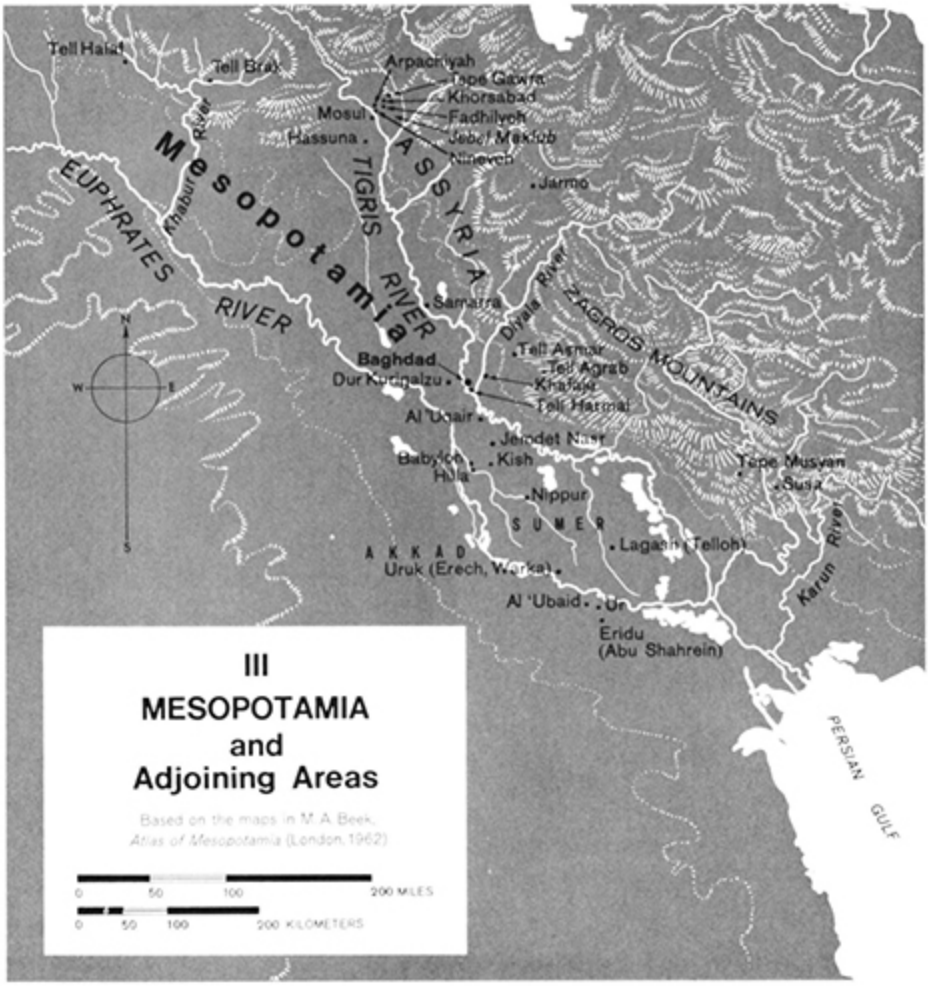
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Tepe Gawra
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Mosul
Fadhilyah
Hassuna
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Nineveh
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Mesopotamia
EUPHRATES RIVER
TIGRIS RIVER
ASSYRIA
Samarra
Diyala River
ZAGROS MOUNTAINS
Tell Asmar
Tell Agrab
Khafaja
Tell Harmal
Baghdad
Dur Kurigalzu
Al 'Uqair
Jemdet Nasr
Kish
Babylon
Hilla
Tepe Musyan
Susa
Nippur
SUMER
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Based on the maps in M. A. Beek,
Atlas of Mesopotamia (London, 1962)
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Sigfried Giedion

El presente eterno: Los comienzos de la arquitectura

Una aportación al tema de la constancia y el cambio

Versión española de
Joaquín Fernández Bernaldo de Quirós

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Wild (at our first) beasts uttered human words
—our second coming made stones sing like birds— ...

E. E. CUMMINGS (1963)

Prólogo

Los comienzos del arte, el primer volumen de EL PRESENTE ETERNO, trataba de la prehistoria. *Los comienzos de la arquitectura* trata de las primeras altas civilizaciones, Egipto y Sumer. Los dos volúmenes son independientes entre sí, aunque unidos sin embargo por un interés común: el problema de la constancia y el cambio.

Se trata de un problema que no acaba con la prehistoria ni con las primeras altas civilizaciones. Impregna toda la historia de la humanidad. En ninguna época, sin embargo, el problema de la constancia y el cambio, arraigado indeleblemente en el espíritu humano, resplandeció tan intensamente como lo hizo durante las primeras altas civilizaciones, de acuerdo con los cambios fundamentales provocados por el establecimiento de un orden social estrictamente diferenciado.

Los cascarones de la prehistoria. Desde tiempo inmemorial, el hombre ha vivido en grupos aislados e independientes. Incluso en el contexto de la nueva sociedad, rígida y jerárquica, algunas de las primitivas creencias del hombre perduraron con notable constancia.

Entre las más destacadas se hallaba el papel del animal, venerado a lo largo de toda la prehistoria como más fuerte y más bello que el hombre. La constancia con la cual persistió esta veneración, junto con el culto a las deidades antropomórficas —la transmutación de animales en deidades y de deidades en animales, y la garantía de inmortalidad a estos últimos por medio de la momificación— atestigua que en ningún momento, durante todo el período egipcio, se rompió el lazo prehistórico con el animal.

Creación de un cosmos antropomórfico. El establecimiento del Estado coincidió con el establecimiento de un panteón de dioses antropomórficos en el cual cada deidad poseía una fisonomía claramente diferenciada, con una misión particular que cumplir, y formaba parte de una familia patriarcal con un jefe dictatorial a la cabeza.

Estrechamente relacionado con la idea de los dioses individuales y antropomórficos estaba el reconocimiento del cuerpo humano —más especialmente el cuerpo femenino— como algo bello. La delicadeza en su tratamiento escultórico fue lograda en la IV Dinastía, y más tarde la representación del cuerpo femenino ha seguido siendo uno de los objetivos supremos del arte del escultor.

Constancia y cambio en el modo de expresión. Las diferencias entre el arte paleolítico y el arte de las civilizaciones arcaicas saltan a la vista. Lo asombroso es la constancia con que perduran algunos elementos constituyentes del arte paleolítico. Las cualidades más expresivas del arte prehistórico se mantienen: el acento sobre el contorno y la excavación de relieves en la piedra. Aunque las irregulares paredes rocosas fueron sustituidas por superficies planas, los relieves rehundidos persisten en su función de captar la luz, acentuándose la iluminación de uno de los bordes del contorno hundido mediante una oscura línea de sombra a lo largo del otro borde, incluso bajo la deslumbrante luz del sol de los pilonos del Imperio Nuevo.

Los orígenes de la arquitectura monumental: Mesopotamia. La creación del primer templo hecho por el hombre coincide con la aparición de la monumentalidad. La

acrópolis prehistórica de Al'Ubaid de Tepe Gaura XIII, con su planta abierta de tres templos, y los grandes templos de Uruk (hacia 3000 a. C.) no fueron superados o siquiera igualados a través de la historia mesopotámica.

Zigurats: escaleras de los dioses. El zigurat, el templo torre, tuvo un origen primitivo pero no alcanzó su culminación (como en el zigurat de Ur) hasta el año 2000 a. C. aproximadamente, medio milenio después que las pirámides. Los zigurats, en contraste con las pirámides, eran accesibles y se hallaban dentro del recinto de la ciudad. Sus series de terrazas dieron oportunidad para la más inspirada invención arquitectónica de Sumer: la escalera monumental.

Los comienzos de la arquitectura de piedra y el ka: *Egipto.* Fue la tumba la que dio origen a la primera arquitectura de piedra. El recinto sagrado del templo mortuorio de Zoser, en Saqqara, con su pirámide escalonada y una galaxia de patios interiores, fue construido con la materia «eterna» con un sólo propósito: proporcionar la vida eterna al *ka* del rey difunto.

Pirámides: ritos y espacio. La forma de la pirámide está compuesta por cuatro triángulos isósceles iguales que convergen en un único punto. Reinan las superficies planas, elemento constituyente de la arquitectura egipcia: un triunfo de la forma abstracta.

A través de un impacto simbólico surge la pirámide y hasta compite con la eternidad. El empeño humano nunca ha logrado de nuevo una sencillez tan sublime en la materialización del irreprimible impulso del hombre de unir su destino con la eternidad. Una precisión impoluta hizo que lo lógico se fundiera con lo enigmático y misterioso.

Los grandes templos y el eterno vagar. Los planos de los grandes templos del Imperio Nuevo corresponden a la creencia egipcia, que no aceptaba pausa alguna ni en la vida ni en la muerte. Su trazado expresaba la idea de un eterno vagar. Excepto en lo que se refiere a la oscura cella en la cual se conservaba la imagen del dios, cada parte estaba concebida como un lugar de paso. Incluso las grandes salas hipóstilas, con sus bosques de columnas, formaban pasillos para el rey y su procesión, que acompañaban a la estatua sagrada de un dios en su vagar hasta otro santuario. Ningún espacio interior estaba destinado a la comunidad como, por ejemplo, en las iglesias cristianas.

Hatsepsut y el patio interior cósmico. El templo mortuorio con terrazas de la reina Hatsepsut fue construido en el anfiteatro rocoso de Deir el-Bahari y representa el espléndido punto culminante de Egipto: una original unidad de arquitectura y escultura que quedó insuperada. Como toda la arquitectura egipcia, este templo está orientado verticalmente, estando su estructura, hábilmente articulada, incrustada con una gran audacia dentro de la inmensa verticalidad del anfiteatro rocoso.

Supremacía de la vertical. Uno de los grandes cambios desde la prehistoria, en la cual se daba igual valor a toda las direcciones, fue el advenimiento de la vertical como principio organizador al que todo había de quedar referido. Esto tuvo lugar al comienzo de las civilizaciones arcaicas, con el nacimiento de la arquitectura. La pirámide, el zigurat y los monolitos en forma de estelas y obeliscos expresaban la vertical como lazo de unión con el cosmos.

La horizontal es la línea del reposo: la vertical es la línea del movimiento. Sin embargo, la horizontal y la vertical se combinan, unidas por el ángulo de noventa

grados, que, junto con ellas, adquirió un valor preponderante. El eje y la simetría son consecuencia de este nuevo principio de organización.

La penetración en el arte egipcio de la vertical como principio de organización es arrolladora. En los relieves todas las figuras están proyectadas sobre un plano vertical, y en la escultura un eje vertical pasa a través del cuerpo, formando la línea de intersección de dos planos verticales que se cruzan en ángulos rectos. Este método de representación se conservó a través de tres milenios.

El significado de la cuadrícula, inventada por los egipcios, no consistía en facilitar la reproducción de las cosas en su apariencia externa, sino en proyectar sus proporciones absolutas sobre el plano vertical.

La primera concepción espacial arquitectónica. La concepción espacial es un registro psíquico automático del entorno visible. Se desarrolla de modo instintivo, permaneciendo habitualmente en el inconsciente.

La primera concepción espacial arquitectónica abarca las civilizaciones arcaicas de Egipto y Sumer y también Grecia. El denominador común, a pesar de las diferencias profundamente arraigadas en casi todas las esferas de la vida, fue una actitud común hacia la disposición de volúmenes en un espacio ilimitado. Las pirámides de Gizeh y la Acrópolis de Atenas ofrecen tal vez la expresión más clara de la actitud hacia el espacio arquitectónico a través de este largo período. Las diferencias entre ellas son más evidentes que su subyacente planteamiento común del espacio.

Ni en la civilización griega ni en la egipcia se produjo una evolución del espacio interior que pudiera compararse con la inmensa fuerza con que sus constructores supieron expresarse cuando enfrentaron las estructuras con el cielo abierto.

Agradecimientos

Este libro, como el primero, es el resultado de las conferencias Mellon de Bellas Artes, dadas en la National Gallery of Art de Washington en 1957. Los estudios en los que está basado han abarcado más de quince años.

Quiero agradecer la ayuda que me fue prestada desde muy diferentes lados.

John Marshall, de la Fundación Rockefeller, contribuyó amablemente a abrirme muchas puertas en Egipto e Iraq.

Tuve la oportunidad de pasar algunas semanas en la casa de descanso del fallecido Zakaria Goneim, inspector jefe de Arqueología en Saqqara, en la época en que descubrió la entrada, inviolada, a la pirámide inacabada.

Me cupo el privilegio de ser introducido en todas partes del complejo de Zoser, en Saqqara, por Jean-Philippe Lauer, cuyos infatigables esfuerzos han resucitado la primera arquitectura en piedra.

También en Saqqara conocí a W.B. Emery y conversé con él.

Herbert Ricke, director del Instituto egiptológico suizo de El Cairo, me concedió amablemente permiso para reproducir algunas de sus importantes reconstrucciones de estructuras de la edad de la pirámide.

En Iraq conté con la valiosa colaboración de los funcionarios del Museo de Bagdad, bajo el ex director general de Arqueología, Naji-al-Asil. Fuad Safar, excavador de Eridu y Hassuna, dedicado entonces a estudiar el templo pintado de Al'Uqair y el zigurat de Aqar Quf, me dio consejos muy valiosos.

En Nasiriya, al sur de Iraq, el gobernador se mostró muy hospitalario y nos proporcionó *jeeps* y una escolta para nuestras excursiones a través del desierto.

En Uruk (la moderna Warka) fuimos calurosamente recibidos por Heinrich Lenzen y A. Falkenstein y puestos al corriente de los problemas relacionados con este extenso yacimiento.

En Inglaterra, los conservadores de los departamentos de Arqueología de Egipto y de Asia occidental del British Museum de Londres y el conservador del departamento de Arqueología del Ashmolean Museum de Oxford prestaron una valiosa ayuda en la aportación del material necesario.

En Munich aproveché los consejos del profesor H.W. Müller y también del doctor J. von Beckerath, destacado especialista en cuestiones de cronología egipcia, a quien estoy particularmente agradecido por su amabilidad al escribir un ensayo profundizando detalladamente en los arduos problemas del establecimiento de fechas precisas en las primeras altas civilizaciones. La publicación de este libro se adelantó demasiado, impidiendo que dicho ensayo fuera insertado en su totalidad, pero en la Primera Parte se hallan incluidos extractos del mismo.

En París recibí mucha ayuda por parte de Marie-Louise Tisserant, del departamento de Arqueología egipcia del Louvre, hasta su reciente fallecimiento en un accidente de automóvil.

Debo dar las gracias muy especialmente a mi amigo William Stevenson Smith, conservador del departamento de Arte egipcio del Museo de Bellas Artes de Boston, por sus pacientes consejos mientras trabajé en la biblioteca del museo y por su constante ayuda en las interminables cuestiones prácticas y de detalle surgidas en la preparación de este libro.

En la Universidad de Harvard —como por lo que se refiere al primer volumen— quiero expresar mi gratitud a la constante ayuda del personal de la biblioteca de la Graduate School of Design, la Widener Library y el Fogg Museum. La mayor parte de los dibujos adaptados de otros planos o basados en los bosquejos del autor fue realizada por Tao Ho, estudiante de arquitectura de la Graduate School of Design.

Mi amigo G.E. Kidder Smith me permitió amablemente reproducir algunos de sus brillantes trabajos fotográficos. La mayor parte de las fotografías, sin embargo, fue hecha por el autor. La tipografía y la composición son de Herbert Bayer, basadas en una maqueta preliminar preparada por el autor.

Como lo hiciera para el primer volumen, la profesora Jaqueline Tyrwhitt (Graduate School of Design, Universidad de Harvard), se encargó de todos los aspectos de la traducción o la supervisó y cargó con la pesada responsabilidad de poner este libro a punto.

El resumen de los dos volúmenes de esta obra constituyó la primera Conferencia Gropius en la Universidad de Harvard, el 15 de abril de 1961, bajo el título de «Constancia, cambio y arquitectura».

S. GIEDION

Doldertal, Zurich
Agosto de 1963

Primera parte:
Los diferentes destinos de Egipto y Sumer

Constancia y cambio en las civilizaciones arcaicas

El problema de la constancia y el cambio durante las primeras altas civilizaciones está en la raíz de nuestras investigaciones. Nosotros estudiamos Egipto y Sumer en términos de una prolongación de la prehistoria, antes que situarnos desde el punto de vista de Grecia. El arte griego no es para nosotros el modelo universal de acuerdo con el cual pueda valorarse lo perfecto y lo menos perfecto. Así, la pregunta que se plantea inmediatamente es esta: ¿Cuáles eran los elementos de la prehistoria que todavía llevaban en la sangre las civilizaciones arcaicas?

En las primeras civilizaciones arcaicas, como en la prehistoria, la separación de la creencia y la realidad, de lo sagrado y lo profano, no estaba todavía acentuada. *pág. 68 y ss.* El aislamiento de la realidad, simbolizado por el destronamiento del animal, había comenzado pero no era aún completo, y en todo caso no lo era en Egipto.

El estudio de la continuidad contribuye a poner en claro los problemas del cambio, lo cual contiene la semilla de la futura evolución. Entra en las nuevas experiencias de organización de amplios territorios y de creación de una vida comunitaria en ciudades recientemente formadas. La posición y la evolución de la arquitectura están vinculadas a esas nuevas dimensiones.

En un período tan lleno de expresiones simbólicas y que se remonta muy atrás en la prehistoria, la arquitectura no puede ser tratada aisladamente. Como la escultura y la pintura, la arquitectura no fue creada en primera instancia para recreo de la vista. Las estatuas en las cuales se descubrió y expresó por primera vez *pág. 120 y ss.* la belleza humana —especialmente la belleza de la figura femenina— fueron colocadas en la eterna oscuridad o en lugares inaccesibles.

La forma de las pirámides es una expresión típica de relación entre lo sagrado y lo profano. La precisión geométrica más estricta va unida al anhelo de eternidad. En este sentido Platón, que comprendía el pensamiento egipcio, consideraba que las leyes de la geometría eran eternamente constantes e invariables. La forma de la pirámide y la soberbia imaginación que se encarna en la naciente arquitectura de Egipto no son más que la cima del iceberg que emerge sobre el agua, mientras que la masa principal permanece oculta bajo la superficie. Así, el co- *pág. 304 y ss.* mienzo de la arquitectura sólo puede tratarse con referencia al fondo religioso del cual surge.

La arquitectura egipcia tiene los más estrechos vínculos con los principios de la escultura y el relieve. Las leyes de composición que rigen una pirámide y una escultura son idénticas. Al aproximarnos a la arquitectura egipcia debemos ser *pág. 160 y ss.* conscientes de los modos egipcios de expresión en la escultura y el relieve, sobre todo el relieve, el cual se halla tan estrechamente vinculado a la arquitectura egipcia como los relieves de animales prehistóricos a las paredes rupestres en las cuales fueron tallados. Los relieves egipcios son de una clase especial: son relieves *fig. 86* rehundidos. Nunca sobresalen de la superficie de la pared, en contraste con los al- *fig. 89* torrelieves de Mesopotamia y, más tarde, de Grecia. Es interesante señalar la constancia y el cambio que se manifiestan en la interpretación de las diferentes necesidades de la prehistoria y las civilizaciones arcaicas por el uso de medios artísticos similares. Los relieves prehistóricos nunca sobresalen de la superficie na-

tural de la roca, y aunque en Egipto las irregulares paredes rocosas se convierten en superficies pulidas y planas, los relieves permanecen incrustados en la superficie. El descubrimiento de las cualidades expresivas que encierra la superficie plana constituye uno de los hallazgos fundamentales del arte egipcio. Tan pronto como Egipto se encontró a sí mismo, todo quedó sometido a las leyes de la superficie plana.

El arte primitivo estaba relacionado con la delineación del contorno, ya estuviera grabado en arcilla, hueso o roca. El dominio del contorno era fundamental en el arte primitivo. Los relieves egipcios estaban también grabados en piedra. Cambiaron los métodos al cambiar las situaciones, pero el principio siguió siendo el mismo. Un artista egipcio era frecuentemente llamado «dibujante de contornos», lo cual constituía, como Hermann Junker demostró con gran perspicacia filológica, una privilegiada posición social. En las ceremonias fúnebres el pintor, portador de sus ofrendas, se halla junto al servidor de más categoría del señor fallecido (1959, pág. 52).

El relieve rehundido figura entre los productos más característicos del arte egipcio. Es verdad que la mayor parte de los autores carga el acento sobre las estatuas tridimensionales, que se anticipan a la evolución griega. Los relieves eran brillantemente pintados, situándose así tan cerca de la pintura como de la arquitectura y revelándose en ellos las excepcionales dotes narrativas de los egipcios.

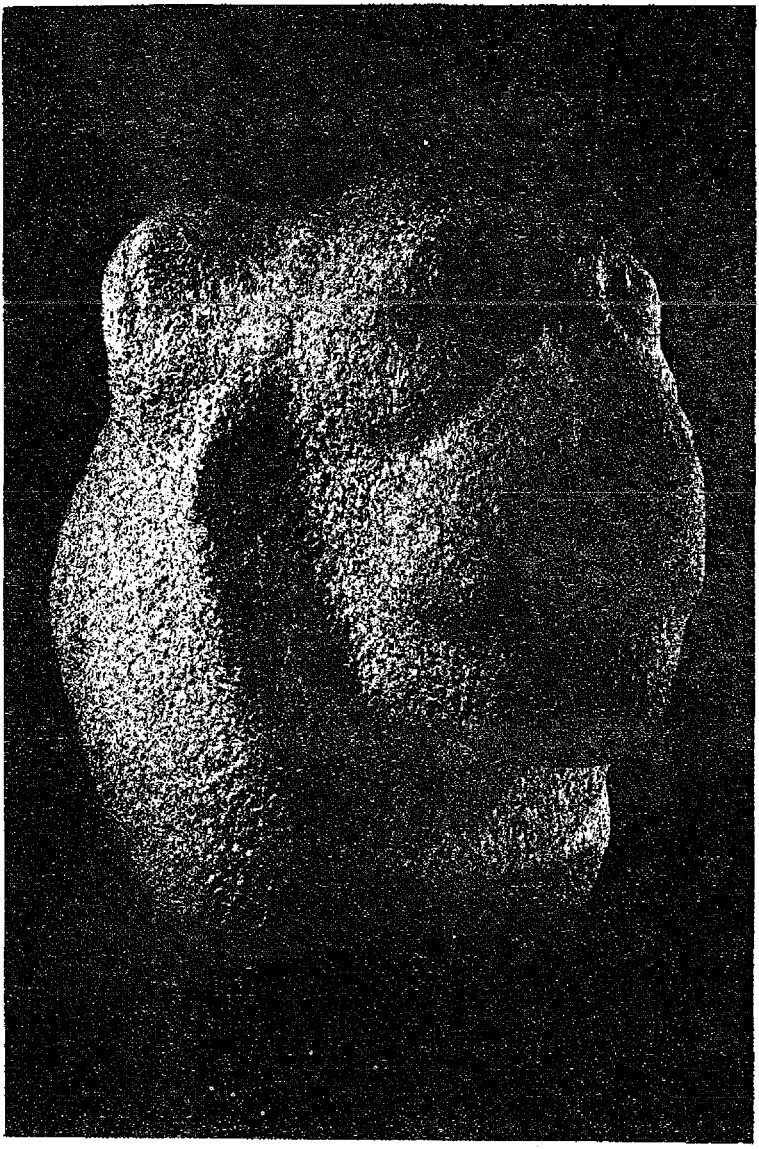
Los contornos rehundidos habían tenido, en las cavernas prehistóricas, la misión de captar la luz vacilante de las antorchas. La misma misión tuvieron en la semioscuridad de las cámaras funerarias de la edad de la pirámide e incluso más tarde, haciendo que resplandeciera la luz del sol en los grandes pilonos del Imperio Nuevo. La síntesis de pared, escultura y estructura, que siempre deberá ser resuelta de nuevo a través de la historia de la arquitectura, llega por primera vez en Egipto a una acabada perfección.

Semejanzas y diferencias entre Egipto y Sumer

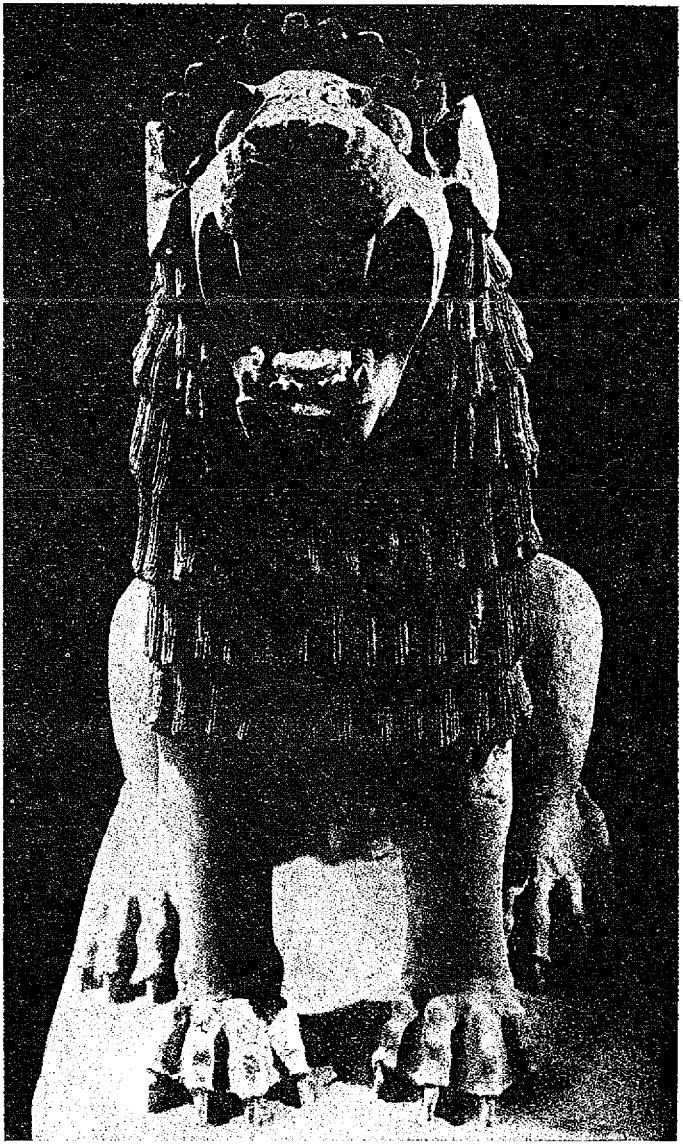
Aparte de los problemas generales de constancia y cambio, surge un problema especial relacionado con las dos primeras civilizaciones arcaicas. Se trata de la diferencia básica entre Mesopotamia y Egipto, expresada en sus diferentes actitudes hacia la vida y también en los diferentes destinos de los dos países. Como ejemplo demostrativo de estas diferencias pueden citarse dos esculturas: una procede de la edad de la pirámide, hacia 2400 a. C., y la otra corresponde al período cumbre de la construcción de zigurats, hacia 2000 a. C.

Detrás de la sala de columnas del templo de la pirámide del rey Niuserre (V Dinastía), Ludwig Borchardt halló la cabeza de un león en actitud de marcha, de tamaño mayor que el natural. Apenas si había unos pocos detalles aislados sobre los que basar la postura y la situación del animal dentro de un profundo nicho delante de la parte más escondida del templo (1907, págs. 69-70).

Esta cabeza de león, de granito rosado, es una maravillosa escultura de innata dignidad y reposada fuerza. La cabeza surge de la melena como de una guirnalda. La boca está cerrada, indicada solamente por una línea curva. Las orejas están ape-



1. Cabeza de león egipcia, de granito rosado, procedente del templo funerario del rey Niuserre. Maravillosa escultura de innata dignidad y serena fuerza.



2. León mesopotámico de terracota. Uno de los dos depredadores que, rugiendo furiosamente, guardaban las puertas de la ciudad de Tell Harmal.

nas levantadas, y los ojos hundidos. Los planos han sido tratados de manera magistral y, gracias a la omisión de los pequeños detalles, la obra alcanza un impresionante nivel, como la escultura anterior, de la época del rey Narmer, del dios Thot en forma de cinocéfalo. Su descubridor la consideró incompleta, tal vez porque falta el pulimentado final, pero se trata verdaderamente de una completa obra de arte. *fig. 5*

Por analogía con las representaciones mesopotámicas, este león ha sido considerado un guardián del templo, pero es mucho más probable que se trate de una personificación del rey. Este león no es un símbolo de defensa: «Es un símbolo del soberano» (Schweitzer, 1948, pág. 25). La majestuosa Esfinge de Gizeh lleva la cabeza del rey Kefrén, y su sosegado cuerpo de león ha sido interpretado igualmente como guardián de la necrópolis. Su significado real está más cerca de la interpretación egipcia tardía, cuando —habiéndose olvidado su significación original— se consideró que la Esfinge representaba al dios Horus. *fig. 33*

Una indicación de que el león de Niuserre no es un guardián se da en el único relieve bien conservado de este templo, hallado junto al león en actitud de marcha. Dicho relieve describe una escena íntima en la cual el dios Anubis, con cabeza de chacal, ofrece al rey entronizado el *ankh*, el signo de la vida (Borchardt, 1907, pág. 16).

Los dos leones de barro de Tell Harmal, agachados a ambos lados de la puerta de esta pequeña ciudad sumeria cerca de Bagdad, exhiben una terrorífica brutalidad. A primera vista parecen estar compuestos solamente por unas amenazadoras fauces con los colmillos al descubierto. Las narices fogosas y los ojos salientes están acentuados mediante las cejas fuertemente esculpidas; tienen el pelo erizado y las orejas tiesas. Un par de depredadores eternamente furiosos. Todo lo demás no es sino oropel: los cuerpos agazapados, las garras extendidas y las envolventes melenas que cuelgan en toscos mechones como los mantos de lana de los sacerdotes sumerios. Este fue el modelo normal de representación hasta la época de Babilonia, cuando Nabucodonosor construyó un friso de sesenta leones de esmalte multicolor, erigido a ambos lados de su camino procesional. Como los monstruos de Tell Harmal mil quinientos años antes, rugen con las fauces abiertas, las narices fogosas y el pelo erizado: eternamente dispuestos a atacar a un desconocido. *fig. 2* *fig. 20*

La distinta naturaleza de los leones egipcios y mesopotámicos expresa los diferentes destinos de los dos países. Algunas regiones parecen condenadas a seguir un cierto camino desde el principio hasta el final. Mesopotamia, que se hallaba sometida por el norte y por el sur a constantes invasiones desde las tierras altas asiáticas, tenía asignado un trágico destino desde el principio.

Actitud hacia la muerte

El origen de toda religión descansa en el anhelo del hombre de entrar en contacto con las fuerzas sobrenaturales, de manera que pueda conocer el futuro. A esto se añade otro deseo humano más general e inextinguible: el anhelo de prolongar la vida, de continuar la existencia después de la muerte. La actitud del hombre hacia la muerte y el más allá es cambiante, lo cual ofrece una clave de la

naturaleza de cada religión y, por consiguiente, de la actitud de cada pueblo hacia su destino. Esto se acusa particularmente en el caso de Egipto y Sumer, cuyas culturas se desarrollaron simultáneamente.

La actitud optimista de los egipcios hacia el más allá muestra su don especial para desestimar, o por lo menos iluminar, el lado oscuro del destino humano. La vida en la tierra era sólo un comienzo. La muerte, una estación del camino, un puente hacia una vida eterna y maravillosa. El famoso Texto de las Pirámides que comienza: «Oh rey N, tú no has muerto, tú estás vivo» (§ 134; trad. ing. de Piankoff, 1957, pág. 7) encierra un concepto básico de los egipcios.

La continuidad eterna en el más allá requería colaboración por parte de los vivos. El difunto necesitaba una morada permanente —eterna— en la tierra. Incluso en el Período Reciente, los ladrillos secados al sol se consideraban adecuados para las casas y palacios de los vivos, pero los muertos requerían un material indestructible: la piedra. La aparición de la arquitectura de piedra puede, en primera instancia, atribuirse a la idea egipcia de la naturaleza de la muerte.

La vida en el más allá era una reproducción casi directamente material de la vida en la tierra, pero más magnífica, casi divina. La creencia en la continuación de la vida terrena con todas sus ramificaciones era tan viva que, en el complejo mortuorio del rey Zoser, en Saqqara, estaba previsto todo lo que podía contribuir a su real existencia: desde los edificios de la administración hasta sus estancias privadas bajo la pirámide y bajo su tumba situada al sur. El complejo también expresa lo que estaba más cerca de su corazón: la perpetuación eterna de su poder político. Están previstos amplios patios para asegurar la renovación de la majestad real por medio de las fiestas del Heb-Sed, o jubileo. El patio del Heb-Sed estaba bordeado por capillas de las cuarenta y dos provincias que rendían tributo a Zoser. En el eje del gran patio se hallaban situadas dos piedras entre las cuales el rey corría probablemente la carrera ritual del Heb-Sed para dar prueba de su fuerza varonil. En su mansión subterránea el propio Zoser se había retratado así.

Este ambicioso programa no fue seguido por los constructores de pirámides de la siguiente IV Dinastía. La influencia cada vez mayor de la clase sacerdotal exigía una creciente concentración sobre el ritual por el cual el rey fallecido era transformado en deidad. El deseo de una morada duradera hizo nacer la arquitectura de piedra, pero los templos de piedra no alcanzaron dimensiones monumentales hasta el Imperio Nuevo, cuando Egipto se disponía a convertirse en potencia mundial.

Entre las medidas necesarias para asegurar la continuidad de la vida estaba la conservación del cuerpo terrenal, lo cual dio origen a la ciencia de la momificación. Que el privilegio de la vida eterna se extendiera también a los animales es un indicio de que éstos habían conservado hasta el fin la igualdad con la especie humana y de que todas las criaturas formaban una sola comunidad.

Como garantía adicional, por lo menos durante el período cumbre del Imperio Antiguo, las estatuas fúnebres del muerto —o mejor estatuas del *ka*— fueron colocadas en las mastabas de los nobles y en el templo del valle del rey Kefrén.

Los muertos consumían los mismos alimentos que los vivos y, por lo tanto, necesitaban ofrendas regulares, que se colocaban ante las falsas puertas de sus tumbas. Al noble fallecido se le reproducía sentado en un taburete y disfrutando

la visión de un gran montón de ofrendas. Tenemos que agradecer a estos ritos muchos de los más hermosos relieves y, en el Imperio Nuevo, los murales magníficamente coloreados de la necrópolis de Tebas, en los cuales se observa cómo se llevaban todos los productos de las tierras del noble fallecido para atender a sus necesidades. Los pintores pusieron sus mejores obras al servicio del culto de los muertos.

Los cereales de los campos del más allá alcanzaban cuatro metros de altura, y para asegurar la perpetuación de las cosechas era necesario que los labradores cultivaran los campos de Osiris. Egipto renunció pronto a la matanza de los esclavos obreros, cuyas tumbas han sido descubiertas alrededor de las mastabas de la I Dinastía al norte de Saqqara. En el Imperio Antiguo, los sacrificios humanos fueron sustituidos por estatuillas de siervos colocadas dentro de la tumba, y desde la época del Imperio Medio incluso éstas fueron reemplazadas por figurillas *(ushabtiu)* de piedra, terracota o madera, a las cuales se daba vida mágicamente para que se encargaran del duro trabajo en los campos de Osiris (Speleers, 1923, pág. 24). Del mismo modo, figurillas de siervas hacían las veces de concubinas del noble difunto.

La muerte poseía todos los privilegios. Esta convicción debe haber existido desde tiempos muy remotos. W. B. Emery halló una barca para uso del difunto cerca de una mastaba real de la I Dinastía en el norte de Saqqara, y otra en Heliópolis. Otras tumbas más modestas junto al Nilo también tenían pequeñas barcas enterradas al lado.

Como las estrellas y el dios solar Ra, los muertos vagaban por el cosmos. No permanecían perpetuamente dentro de sus tumbas ni perpetuamente en el más allá. En un texto funerario de la XVIII Dinastía se da alguna idea de la existencia después de la muerte: «Tú entras, tú sales, mientras tu corazón goza del favor del Señor de los Dioses... También ocurre que tú vives de nuevo. *Tu espíritu no será separado de tu cuerpo*... Tú recibes lo que hay sobre la tierra. Tú tienes agua, tú respiras el aire, tú bebes cuanto quieres» (Piankoff, 1957, pág. 3; el subrayado es mío).

A los simples mortales se les concedía la gracia de vivir como dioses. Un himno tardío a Amón-Ra dice: «El Antiguo que al principio surge como un joven, que domina los límites de la eternidad, que asciende, atravesando el Otro Mundo, para dar luz al país con lo que él ha creado» (pág. 13).

La muerte no presagiaba ningún fin, siendo un traslado al ciclo cósmico de la eterna renovación de la vida. El proceso de pensamiento en el cual se basa esto puede ser calificado dialécticamente de unidad que va más allá del presente: «Todo lo que vive y todo lo que crece es el resultado de una colaboración inexplicable y completamente misteriosa de factores heterogéneos... Fuerzas conflictivas, puede decirse que fuerzas que se excluyen mutuamente, se combinan en la creación de un nuevo estado» (pág. 29).

Fue en Sumer donde se expresó por primera vez la tragedia de la existencia humana y el destino fatal que cada cual debe soportar: «El hombre que sufre, lucha y actúa tal como es y era y siempre será» (Burckhardt, 1868; trad. ing. 1943, página 82), el hombre sin accesorios, desnudo como la diosa celestial Inanna,

quien, despojada en su descenso al infierno, compareció desnuda ante la reina del otro mundo. La humanidad aparece en toda su desesperanza, aterrorizada por la muerte y aferrada a la vida presente, a las posesiones terrenas, a todo lo que esté a mano.

Hasta el héroe Gilgamés, hombre en una cuarta parte y dios en tres cuartas partes, hubo de seguir el curso del destino humano. Sus sufrimientos no fueron sino el destino de todos los hombres después de la muerte. El foco no se concentra sobre las aventuras de Gilgamés y de su amigo Enkidu como se concentra sobre Hércules, cuyas hazañas fueron tan celebradas por los griegos (por ejemplo en las metopas del templo de Zeus en Olimpia). El tema que se repite periódicamente en las tabletas mesopotámicas es el de la ruptura de relaciones entre dos humanos causada por la muerte temprana de uno de ellos. Después de la muerte de Enkidu, Gilgamés se lanzó a través del país en una espantosa agonía de desesperación, enloquecido de miedo ante su propia muerte. No pudo descansar hasta que los dioses le permitieron encontrarse con el espectro de Enkidu en el otro mundo. Los dos se reconocieron mutuamente, pero las noticias que Gilgamés trajo del otro mundo suponían la destrucción de toda esperanza. Enkidu le dijo: «Mi cuerpo... se ha encogido, está lleno de polvo, se ha hundido en el polvo» (Pallis, 1956, página 687).

Gilgamés deseaba desesperadamente evitar el mismo destino, y el resto de la epopeya relata su combate con la muerte mediante la frenética búsqueda de la planta de la vida eterna. Cuando finalmente la encuentra en el fondo del océano, una serpiente, emergiendo de las olas, se la come mientras Gilgamés se está bañando. El concepto de un destino predeterminado que gobierna tanto al afortunado como al infortunado, tema desarrollado dos mil años después en la *Ilíada*, se halla prefigurado inflexiblemente en la epopeya de Gilgamés.

Las diferentes actitudes hacia la muerte se reflejan en las dos diferentes ideas del otro mundo que tuvieron los dos pueblos. Para los egipcios era un lugar de renovada fuerza y renacimiento. Todas las noches el sol, en su viaje cósmico, pasaba a través del cuerpo de la diosa Nut, de manera que a la mañana siguiente pudiera nacer entre sus muslos. Las ancestrales versiones ctónicas de los poderes creadores de la tierra aparecen aquí reunidas por los sacerdotes heliopolitanos.

El viaje nocturno del dios solar Ra, en su barca, a través del mundo inferior, estaba rodeado de peligros que sólo existían para ser felizmente superados.

La visión sumeria del otro mundo era la de un lugar totalmente hostil a la vida, un lugar de miseria y de desesperanza: «Como el *Sheol* hebreo, el *Kur* [el otro mundo sumerio] es la oscura, pavorosa morada de los muertos. Es una tierra de la que no se vuelve, donde sólo excepcionalmente el espectro de un personaje antes prominente podía ser llamado para ser interrogado» (Kramer, 1959, pág. 197).

Kur era un lugar donde se anhelaba desesperadamente lo que había sido, la vida: «Después de su muerte», dice S. N. Kramer, describiendo un poema publicado en 1919 por Stephen Langdon, «el gran rey Ur-Nammu llegó a Kur... Cuando hubieron pasado 'siete días', 'diez días', el 'lamento de Sumer' llegó a él. Las murallas de Ur que había dejado sin terminar, su palacio recientemente construido que

había dejado sin purificar, su mujer a la que no podría ya estrechar contra su pecho» (1956, págs. 182-183).

En el «Descenso de Inanna al Otro Mundo», Kramer (págs. 186-193) retraduce y reúne, a partir de tabletas rotas y dispersas, una historia sobre la cual muchos estudiosos han trabajado desde 1914.

Cuando Inanna, diosa del amor y reina del cielo, entró en el otro mundo, fue desnudada, privada de su divinidad y muerta por los ojos mortíferos de su hermana, Ereshkigal, reina del otro mundo. Su cadáver fue colgado de un poste. Sólo gracias a la astucia y a la magia pudo Inanna regresar del más allá y, además, solamente bajo la vigilancia de los demonios, a condición de que entregara a un sustituto. No pudo hallar a nadie hasta que, al llegar a la ciudad de su amante, Dumuzi (Tammuz),

Fijó los ojos en él, los ojos de la muerte,
Pronunció la palabra contra él, la palabra de ira,
Profirió el grito contra él, el grito de acusación:
«Llevádosle» —dijo—,
Y la pura Inanna puso al pastor Dumuzi entre sus manos.

Fue Kramer quien descubrió el final de la historia. Hasta entonces, Dumuzi e Inanna habían sido considerados como la pareja de amantes más grande de la mitología sumeria. Dumuz era un dios de la vegetación, como Osiris, y cuando Inanna fue prematuramente separada de él, se creyó que había descendido una vez más al otro mundo para devolverle a la tierra. La despiadada inhumanidad de la nueva versión nos da una idea del extremado pesimismo del mundo mesopotámico. Lo que se expresa en este poema sumerio se repitió una y otra vez hasta el fin de la tumultuosa historia del País de los Dos Ríos.

Influencias sobre los comienzos de la arquitectura

A diferencia de Egipto, en Mesopotamia nada pudo impulsar la creación de una arquitectura basada en convicciones tan vagas e intangibles y en una aproximación tan profundamente pesimista a la vida después de la muerte.

Los muertos tenían que descansar debajo de la tierra. No había nada para ellos en el cielo. Todos tenían que descender al otro mundo, a la «región de donde no se vuelve». Carecía por lo tanto de sentido erigir lugares de residencia permanente para los muertos. Por esta razón las tumbas mesopotámicas eran simplemente cubiertas con tierra, y así permanecían. Las apretadas hileras de las llamadas tumbas de los reyes del Cementerio Real de Ur (hacia 2500 a. C.) no eran sino osarios subterráneos. El más espectacular de ellos, hallado por C. L. Woolley, pertenecía a la reina Shubad, que fue enterrada allí con ochenta miembros de su familia, sacrificados. Los vasos dorados y las arpas adornadas con incrustaciones muestran un modelo cultural que resiste la comparación con los muebles labrados, grabados con jeroglíficos, hallados en la tumba de la reina Heteferes, la madre de Keops. Pero arquitectónicamente las tumbas mesopotámicas carecían de importancia. Sin embargo éste fue el período en que las grandes pirámides de Keops, Kefrén y Micerino asaltaron el cielo.

Las tumbas mesopotámicas siempre fueron iguales. Las criptas de los reyes asirios del siglo VIII a. C. halladas en Jorsabad también carecían de superestructura.

El culto a los muertos de los egipcios dio origen a sus más hermosos logros arquitectónicos. El templo oficial del Imperio Nuevo en Karnak es el más impresionante, pero el templo mortuorio de la reina Hatsepsut en Deir el-Bahari es la obra maestra.

La nada sin esperanza en la cual fluyen los sucesos de la mitología sumeria refleja el destino de Mesopotamia. Se han encontrado pocas menciones de luchas por el poder entre ciudades-estado, tales como el combate entre Lagash y Umma en el primer período histórico, y dichas menciones han tenido que ser reunidas a partir de las pocas y dispersas inscripciones. La primera inscripción, en la Estela de los Buitres, describe la victoriosa campaña llevada a cabo por Eannatum de Lagash contra la ciudad de Umma (hacia 2460 a. C.). Esta lucha continuó intermitentemente durante un siglo, hasta que ambas ciudades fueron conquistadas por el poderoso Sargón de Acad. Medio milenio después se repitió la misma escena en el período de Isin-Larsa (hacia 1960-1700 a. C.), hasta que la lucha por el poder fue llevada a un final decisivo por el gran Hammurabi de Babilonia. La misma historia se repite continuamente, variando sólo en sus dimensiones. Finalmente, los imperios mundiales de Babilonia y Asiria se extinguieron ambos alternativamente hasta que el persa Ciro puso fin para siempre a la existencia independiente de Mesopotamia.

Una larga serie de conquistadores implacables llevó a cabo la destrucción general en ambos lados. Con ocasión de una revuelta, Asurnasirpal III de Asiria (883-859 a. C.) mandó que fueran «despellejados todos los jefes rebeldes y el cadalso [que había sido levantado para este propósito] tapizado con su piel... otros... empalados en postes encima de la torre» (Schmökel, 1957, págs. 252-253).

Cuando Asurbanipal, el caudillo asirio, ilustrado por lo demás, conquistó Babilonia en 648 a. C., la devastación fue llevada a extremos tales que hasta los huesos de los reyes anteriores fueron exhumados. «Destruí, devasté y expuse al sol los sepulcros de los primeros y últimos reyes... Puse el desasosiego sobre sus sombras» (Champdor, 1957; trad. ing. 1958, pág. 88). El poder del conquistador alcanzó los límites del mundo entonces conocido, con la excepción de Egipto. Sin embargo, menos de medio siglo después, en 612 a. C., Asiria fue diezmada y Nínive destruida por completo. «Nínive fue sepultada bajo un montón de cenizas; sus arrogantes guerreros arrojados al fondo del mundo de Nergal, donde cada recién llegado recibe como único sustento las sesenta enfermedades que le afligirán durante toda la eternidad, donde se convierte en un espectro más entre las sombras errantes, soñando siempre con el retorno a la tierra para devorar a los vivos» (págs. 91-92).

La magnificencia de Babilonia fue renovada por última vez por Nabucodonosor: su resplandeciente zigurat, Etemenanki —la Torre de Babel—, su gran Puerta de Ishtar, y la majestuosa avenida procesional. Apenas veinte años después de la muerte de Nabucodonosor, Babilonia fue conquistada por Ciro, en 538 a. C. El reino babilónico se convirtió en una provincia persa. Raramente en la his-

toria ha rodado el destino con una crueldad tan insistente y al mismo tiempo con una compresión tan mecánica.

Períodos de Egipto y Sumer: fechas y divergencias

Al comparar las dispares estructuras de las dos civilizaciones arcaicas, las fechas de sus comienzos son particularmente importantes, ya que ambas toman la delantera por turno. Desgraciadamente no hay acuerdo —ninguna *communis opinio*— en la determinación del comienzo de la era histórica. Para los períodos anteriores solamente tenemos fechas relativas en cuanto se refiere a su época y duración, derivadas de la posición y del espesor de los estratos en los cuales fueron hallados sus objetos característicos.

Aun después de la invención de la escritura —hacia 3000 a. C.— no hay sino escasas pruebas de historia tangible. Las primeras tabletas de arcilla sumerias están inscritas con relaciones de los bienes de las comunidades del templo y, en las dos primeras dinastías de Egipto, los pocos jeroglíficos hallados en estelas funerarias o como impresiones de sellos sobre vasijas solamente dan el nombre del noble fallecido o del monarca reinante.

Más tarde, en Egipto, se dispone ya de las «listas de reyes». Se trata de tabletas en las cuales los nombres de los sucesivos reyes están grabados dentro de cartelas. Dichas tabletas datan del período del Imperio Nuevo. Seti I colocó la Tableta de Abydos en su templo en homenaje a sus setenta y seis antecesores. La Tableta de Karnak fue colocada en el salón de ceremonias (Akh Menou) de Tutmosis III, y la Tableta de Saqqara fue hallada en la tumba del escriba real de Ramsés II. Solamente se ha encontrado una de las listas de papiros que eran también colocadas en los templos: se trata del *Catálogo de Reyes* de Turín, muy deteriorado, perteneciente a la época de Ramsés II.

Estas listas contienen varias versiones del número de años que reinó cada faraón. Además, hay varios fragmentos de una historia de Egipto escrita por el sacerdote egipcio Manetón hacia 250 a. C., la cual parece ahora más digna de crédito de lo que se había pensado durante mucho tiempo. Alan Gardiner arroja luz sobre ésta y otras fuentes en su libro *Egypt of the Pharaohs* (1961, págs. 46-68).

Aparte de éstas, contamos con la ayuda de ciertas indicaciones astronómicas de textos egipcios. Las primeras son las llamadas fechas de Sothis. La aparición de la estrella Sothis (llamada hoy Sirio) se producía simultáneamente a la acometida de las aguas del Nilo y señalaba el comienzo del nuevo año. Pocas informaciones relativas a este acontecimiento pueden ser determinadas astronómicamente (Parker, 1950), y sólo dos de las fechas son realmente ciertas, una en el Imperio Medio y otra en el Imperio Nuevo. Parker sitúa la importante fecha de inauguración del calendario egipcio poco antes de 2900 a. C. En aquella época el año se abría con la aparición de la estrella Sothis, en contraste con el calendario antiguo, el cual, como en casi todos los pueblos primitivos, estaba basado en las fases de la luna.

Los egiptólogos se enorgullecen del descubrimiento de estas fechas astronómicas, que les sitúan sobre una base más segura que la de los investigadores su-

merios. La esclarecedora obra de R.A. Parker se basa en argumentos matemáticos, siendo difícil de seguir por los legos en esta materia. A Parker le interesa menos la cronología exacta de los reyes individuales o de las dinastías que la importante fecha del comienzo de la historia egipcia.

Las cronologías «corta» y «larga»

Ahora es posible hacer una revisión completa de las primeras dataciones, demasiado antiguas, de los períodos prehistórico y protohistórico de Egipto y Mesopotamia, y, después, del período histórico. Actualmente se concede preferencia a la llamada cronología corta. Pero la fecha del comienzo del período histórico, que desempeña un importante papel en ambas civilizaciones arcaicas, se halla todavía sometida a discusión.

El British Museum, el Metropolitan Museum of Art de Nueva York y el Museo de Bellas Artes de Boston sitúan el comienzo del período histórico en 3200 a. C., mientras que J. Vandier, del Louvre, mantiene la fecha de 3300 a. C.

La importancia del establecimiento de fechas para los comienzos del período histórico en Egipto y Sumer queda ilustrada por los trabajos de un gran investigador que en 1925 calculó que, por lo que se refiere a Egipto, la fecha debería remontarse a 4186 a. C., con lo cual sus realizaciones tendrían una prioridad de mil años sobre las realizaciones similares de Mesopotamia (Meyer, 1925, pág. 46). En 1941, Alexander Scharff trató de clarificar esta famosa y debatida cuestión de a quién correspondía la prioridad (pág. 6). Estas investigaciones eran completamente comprensibles, puesto que hasta los años treinta y cuarenta las excavaciones de Mesopotamia no exploraron suelo virgen y hasta entonces no pudo establecerse firmemente la prioridad de Mesopotamia en el cuarto milenio (como en Tepe Gaura y Hassuna en el norte, y Eridu y Uruk en el sur).

Para llegar a comparaciones directas entre Egipto y Sumer necesitamos una cronología establecida conjuntamente por los egiptólogos y los investigadores de Sumer. Aunque en casi todos los libros aparecen tablas comparativas, raramente están de acuerdo. Sólo es posible comparar las principales tendencias.

Ya en 1926, Scharff había atacado la cronología larga de E. Meyer. En opinión de Scharff, el período dinástico temprano comenzó en 2850 a. C. En su último libro, en el cual trata de Egipto, y A. Moortgat del Oriente Próximo (Scharff y Moortgat, 1950), las cronologías de Egipto y Mesopotamia estaban casi sincronizadas.

W. F. Albright está también de acuerdo con la cronología corta tanto por lo que se refiere a Egipto como a Mesopotamia (1946, pág. 364). Después declaró más explícitamente: «Estamos ahora seguros al aproximar la cronología de Scharff y Stock, a partir de la cual la cronología independiente, defendida por el autor desde 1925, raramente diverge en más de cincuenta años» (1954, pág. 30).

Desde entonces, basándose en los estudios de Parker y en sus relaciones, precisamente valoradas, entre las cronologías de los períodos individuales y, sobre todo, el comienzo del Estado egipcio, J. von Beckerath ha hecho retroceder ligeramente el comienzo de la I Dinastía. Después de examinar cuidadosamente las

fechas, operando hacia atrás, von Beckerath llegó a la conclusión de que la I Dinastía comenzó en 2950 a. C., cincuenta años más o menos (von Beckerath, 1961, págs. 31-32). Sin embargo, desde el punto de vista de nuestro libro, el hecho de que esta fecha diverja de la empleada corrientemente, 2850 a. C., no es fundamental, puesto que en cualquier caso no se pueden establecer vínculos precisos con la evolución sumeria. Resumiendo, von Beckerath llega a la conclusión de que «la investigación ha alcanzado ahora tal grado de certeza que solamente el Período Antiguo (I y II Dinastías) y detalles de los llamados períodos Intermedios entre los períodos principales (los imperios Antiguo, Medio y Nuevo, y el Período Reciente) siguen siendo confusos» (1961, pág. 28). Yo me sujeto a sus fechas.

En el siguiente cuadro comparativo, referente a la duración del Imperio Antiguo, que me ha sido enviado por von Beckerath, puede verse con cuánto cuidado han investigado los egiptólogos el asunto de la cronología:

Dinastías	Scharff 1950	Parker 1950	Helck 1962	Hayes 1962	v. Beckerath 1962
VI-VIII	h. 190 años	187 años	187 años	h. 185 años	187 años
V	h. 130 años	160 años	141 años	h. 150 años	152 años
IV	h. 120 años	113 años	113 años	h. 120 años	118 años
III	h. 50 años	50 años	55 años	h. 55 años	52 años
Total	h. 490 años	510 años	496 años	h. 510 años	509 años

La cronología comparativa puede proporcionar algunas ideas. Surge, por ejemplo, la siguiente pregunta: ¿Cuándo fue reconocida por primera vez la belleza humana? A través de toda la prehistoria el rostro humano y la postura humana fueron considerados inferiores a los del animal. Arqueólogos alemanes que trabajaban en Uruk hallaron un encantador semblante femenino, en alabastro transparente, que refleja toda la melancolía sumeria. Dicho hallazgo tuvo lugar en un estrato de Jemdet Nasr de hacia 2800-2700 a. C. En Egipto, la belleza femenina fue reconocida por primera vez unos siglos después, pero entonces abarcó la figura femenina entera.

Los períodos de Mesopotamia

Las historias de Egipto y del Oriente Próximo describen los distintos períodos de cada país. Aquí nos referiremos solamente a los períodos que abarca este libro.

COMIENZOS PREHISTÓRICOS: Los períodos prehistóricos de Mesopotamia se designan por el nombre de la localidad donde fueron descubiertos por primera vez los objetos de cada uno de ellos. En la época histórica los nombres de localidades son sustituidos generalmente por los de ciudades.

Período de Hassuna: Esta cultura rural del norte de Mesopotamia se remonta aproximadamente a 5000 a. C., con asentamientos que proporcionan una rica in-

formación y cerámica decorada que va desde simples triángulos grabados sobre vasijas convexas hasta un rostro femenino en forma de máscara sobre el cuello de una vasija. Esta cultura está relacionada con la cerámica pintada de Samarra, la cual tiene a su vez relaciones con los dibujos de animales, muy evolucionados, de la cerámica del Irán (Giyan, Sialk, Susa).

Período de Al'Ubaid: Designado con el nombre de un montículo de ruinas no lejos de Ur, su cerámica se extiende por casi toda Mesopotamia. En este período la construcción de templos alcanzó su máxima elegancia. Las mejores realizaciones fueron la acrópolis de Tepe Gaura en el norte, hacia 3500 a. C., y el Templo VII de Eridu, en el sur, ambos construidos en la misma época aproximadamente.

La cerámica de Al'Ubaid adquirió formas muy sensibles, tales como las vasijas de libación planas, de picos muy delgados, los llamados «vasos tortuga». La escultura, sin embargo, no llegó más allá de las figurillas-ídolos, tales como las figuras femeninas con cabeza de pájaro de Ur, o las innumerables figurillas halladas en Tepe Gaura y otros muchos lugares.

Período de Uruk: Hacia 3000-2800 a. C. Designado con el nombre del principal centro cultural de Sumer, la ciudad de Uruk, la Erech bíblica, actualmente Warka. Esta era la ciudad de Inanna, diosa de la fertilidad. En el recinto de su santuario se levantaba un templo (Uruk, nivel IV) jamás superado en Sumer ni en su tamaño ni en su elaborada articulación.

El uso de la escritura en este período señala el comienzo de la era histórica.

Período de Jemdet Nasr: Hacia 2800-2600 a. C. Aunque el período es designado por el nombre de un montículo de ruinas a treinta kilómetros al noroeste de Babilonia, los principales hallazgos proceden de Uruk: numerosos relieves, un alto vaso ritual de alabastro dedicado a la diosa Inanna, y el encantador rostro femenino antes citado. Probablemente hubo obras escultóricas más grandes que las conocidas en el anterior período de Uruk, porque la perfección del período de Jemdet Nasr escasamente puede representar el comienzo de una fase. Los cilindros-sellos también alcanzaron la perfección.

Período protoliterario: Esta denominación deriva de la escuela de Chicago y se utiliza para «aquellas fases culturales de la antigua historia mesopotámica en el curso de las cuales apareció por primera vez la escritura y evolucionó hasta alcanzar la fase en la cual empezaron a ser empleados los principios fonéticos... Incluimos en este término la última parte del que ha sido llamado 'período de Uruk' y todo el 'período de Jemdet Nasr'» (Delougaz y Lloyd, 1942, pág. 8, nota a pie de página).

PERÍODO DINÁSTICO ANTIGUO: Esta denominación es ampliamente utilizada, subdividiéndose el período frecuentemente en dinástico antiguo primero, segundo y tercero. Abarca la época comprendida entre 2600-2350 a. C., desde que Sumer se dividió en varias ciudades-estado rivales hasta que fue conquistado por Sargón de Acad.

Período de Mesilim: Hacia 2600 a. C. Llamado así por el rey Mesilim de Kish, ciudad no lejos de Babilonia, inaugura el período dinástico antiguo. En el período de Mesilim el dominio de la función sacerdotal debilita la idea de realeza, a pesar

de la existencia continuada del sacerdote-rey. Este es el primer período del que se conoce un espacioso palacio real con patios, salas y columnas (Palacio A de Kish). Aparentemente también pertenece al período de Mesilim «la primera gran muralla de la historia mundial, la doble muralla de Uruk, de 9,5 km de longitud, con más de ochocientas torres semicirculares pero solamente dos puertas» (Schmökel, 1957, pág. 19).

Primera Dinastía de Ur (período de Ur I): Hacia 2500 a. C. Renombrada por el descubrimiento del Cementerio Real de Ur, con su «foso de la muerte». La escultura de cobre fue desarrollada hasta la completa tridimensionalidad en el templo del rey Aannipadda en Al'Ubaid (a 6 km de Ur). Al mismo tiempo crecía la ciudad de Lagash, a setenta y cinco kilómetros al norte de Ur. El nieto del fundador de esta ciudad, Eannatum (hacia 2460 a. C.), grabó en la Estela de los Buitres el primer relato bélico.

PERÍODO ACADIO: Hacia 2350-2150 a. C. Llamado así por la capital de Sargón de Acad, recientemente fundada. El primer conquistador a gran escala creó también el primer ejército regular, compuesto por 5.400 soldados. Como los posteriores dictadores de Babilonia y Asiria, Sargón de Acad fue deificado. Este es el período en el cual los cilindros-sellos proclaman el destronamiento del animal.

Después de dos siglos de gobierno unificado el Estado quedó dividido por la invasión de los guti (hacia 2200-2075 a. C.). Después se produjo el último renacimiento de Sumer.

PERÍODO DE UR III: Hacia 2065-1960 a. C. Bajo el rey Ur-Nammu fueron construidos en Sumer los mayores zigurats (torres-templo). Los modelos de arquitectura civil alcanzaron un nivel no superado todavía hoy en el Oriente Próximo: las casas con patio de hacia 2000 a. C.

El tema principal de los relieves fragmentarios de la estela de Ur-Nammu es la erección del gran zigurat de Ur, pero también muestran que rey y dios se hallan ahora en un mismo plano.

Con ello acaba la cultura sumeria, que durante más de dos milenios había constituido la base de la sabiduría y de la arquitectura mesopotámicas.

En la generación anterior, bajo la soberanía de Gudea, el piadoso sacerdote-rey, la ciudad de Lagash produjo los más bellos retratos escultóricos de Mesopotamia. Su humanidad eclipsa no solamente las posteriores representaciones de soberanos asirios en evidentes actitudes de mando, sino que ni aun en Egipto existen retratos escultóricos que combinen de tal forma la nobleza y la conciencia del destino humano.

BABILONIA: Hacia 1830-1530 a. C. Durante los pocos siglos de existencia del imperio antiguo de Babilonia, el saber sumerio anterior fue asimilado y extendido. En comparación con otros períodos de la historia mesopotámica ésta fue una época tranquila, casi pacífica: una pausa creadora para tomar aliento.

Babilonia llegó por primera vez al pleno poderío con la ascensión de Hammurabi (1728-1686 a. C.). Las fechas del reinado de Hammurabi fueron determi-

nadas independientemente por investigadores alemanes y norteamericanos, estableciéndose con ellas un punto de apoyo para la cronología corta.

Hammurabi renunció a la divinidad de los reyes acadios y se definió como «pastor del pueblo». Después de la conquista de Mesopotamia, la organización de las comunicaciones humanas fue su más íntimo deseo. La famosa Estela de Hammurabi del Louvre, con sus trescientas leyes, da una grandiosa prueba de ello.

Poco hay que decir de las obras artísticas de este período. En poesía, el poema épico *Enuma Elish* no trata, como el de Gilgamés, de asuntos del destino humano. Es una creación mítica en la cual los dioses libran una tremenda batalla por la existencia contra Tiamat, la madre tierra primordial (Pritchard, 1950, págs. 60-72). El conocimiento científico, sin embargo, fue profundizado y extendido. No es esencial que el teorema de Pitágoras no se haya encontrado formulado en su forma definitiva. Se remonta a los mesopotámicos y demuestra el interés de éstos por determinar las relaciones entre las constelaciones astrales y los asuntos humanos. Como veremos, el contenido del teorema pitagórico era indudablemente conocido en la época de Hammurabi, como lo demuestra una pequeña tableta con escritura cuneiforme de la colección babilónica de la Universidad de Yale. Los mesopotámicos fueron los mejores lógicos y matemáticos de su época. Pero hay que tener cuidado con establecer un paralelo entre sus objetivos científicos y los de hoy. Lo que nosotros llamamos ciencia no era para ellos sino un subproducto de la predicción del destino humano. En primer plano, como en los tiempos prehistóricos, se alza su anhelo por establecer contacto con las fuerzas sobrenaturales. Los sortilegios, la magia, las predicciones no solamente formaban parte de su religión: estaban sistemática y oficialmente organizados. En contraste con la situación de épocas más recientes, todos estos elementos estaban estrechamente relacionados con las creencias religiosas oficiales. G. Contenau, un investigador eminentemente digno de crédito, considera la magia como un elemento de la mayor importancia en la vida del Estado (1947). La creencia de que el hombre posee una cierta sensibilidad que puede permitirle prever los acontecimientos futuros, o, como diríamos hoy, que puede desarrollar poderes mediúmnicos, está por ejemplo, como señala Contenau, en la base de la Cábala. El hombre, hecho a imagen de Dios, también lleva dentro ciertos poderes sobrenaturales.

En los caminos indirectos hacia el conocimiento de la física atómica contemporánea, los cuales contradicen frecuentemente la lógica común y el racionalismo, empezamos a estar menos seguros que los positivistas de comprender lo que está ocurriendo en esta época: un intento de sistematización de los poderes no materiales que actúan en el hombre.

Los presagios, la predicción de acontecimientos futuros a partir de ciertos signos definidos, constituyeron la fuerza motivadora de las observaciones científicas babilónicas. Como dice Otto Neugebauer, el mejor investigador de los conocimientos científicos de la Antigüedad, las determinaciones astronómicas fueron emprendidas «para proporcionar material empírico para los presagios; los acontecimientos importantes en la vida del Estado eran correlacionados con fenómenos celestes importantes, exactamente como los aspectos concretos de los hígados de las ovejas sacrificadas quedaban cuidadosamente registrados en la literatura de los augurios» (1951, pág. 95).

PERÍODO KASSITA: Hacia 1560-1150 a. C. La dominación de los kassitas, pueblo montañés, cayó como una plaga sobre las culturas sumeria, babilónica y acadia. Poco ha quedado de sus muchos siglos de dominio. La mejor idea de este oscuro período la dan las *kudurru* (estelas), con su conjunto de símbolos de deidades. Estos mojones, que fueron conservados en los templos, revelan un interés preponderante por la agricultura y, estrechamente relacionado con ello, un gran respeto por los derechos sobre la tierra. Parece ser que existió poco interés por la evolución o el desarrollo de las ciudades. El legado de los kassitas a la arquitectura es escaso: un pequeño templo dedicado a Anu, en Uruk, cuya fachada con figuras de deidades se aparta de la tradición mesopotámica, y el zigurat de Aqar Quf (hacia 1400 a. C.), cuya inclinación habría parecido bárbara a los ojos de los mesopotámicos.

Esta larga sangría cultural tuvo sus efectos sobre la evolución final de Mesopotamia. Es verdad que el saber fue perfeccionado. El rey Asurbanipal reunió objetos de las culturas sumeria y acadia en su biblioteca de Nínive, y surgió un interés arqueológico por las construcciones del pasado, tanto como en el contemporáneo período saíta de Egipto. Pero no se inauguró nada nuevo. La evolución de cuatro milenios llegó a su final en una atmósfera de expectativas frustradas, del mismo modo que Gilgamés.

Los períodos de Egipto

Los períodos de Egipto, del primero al último, son de una sencillez cristalina comparados con el lacerado destino de Mesopotamia. Al contrario que en este país, el primer período de Egipto no ofrece ningún indicio de su posterior desarrollo: no resiste comparación alguna con el primer período de Mesopotamia y es casi provincial. Aquí será tratado sólo fragmentariamente.

COMIENZOS PREHISTÓRICOS: En el Alto y Bajo Egipto había comunidades rurales que fueron sumamente primitivas hasta el umbral del período histórico. La agricultura más antigua se desarrollaba en el Bajo Egipto. Se han hallado graneros cilíndricos en las aldeas neolíticas del Fayum, al oeste del Nilo y a unos ochenta y cinco kilómetros al sur de El Cairo, y chozas de cañas en la neolítica Merimde, en la orilla oeste del delta del Nilo. Los poblados tempranos de Ma'adi y El'Omari, cerca de El Cairo, tenían chozas redondas y ovaladas, y en el primero de ellos encontramos una costumbre que se remonta a la época musteriense: el enterramiento de los muertos debajo de la vivienda.

En el sur, se ha obtenido información principalmente a partir de los cementerios, muy abundantes, y éstos dan su nombre a los diferentes períodos. Su cronología absoluta es todavía objeto de conjeturas.

Período tasiense: Quinto milenio. Llamado así por Deir Tasa, a unos treinta kilómetros al sur de Asyut. Pocos vestigios, uno de ellos una copa negra, en forma de tulipán, con sencillos triángulos con incrustaciones blancas.

Período badariense: Cuarto milenio. Llamado así por El-Badari, al sur de Deir Tasa. Cerámica primitiva y figurillas, tales como la compacta figura de arcilla de una mujer con gran cabeza, grandes ojos incisos y vulva sombreada. También

aparecen en esta época otras figurillas femeninas sentadas, escultóricamente interesantes, con pechos plenamente desarrollados y sólidos muslos.

Período amratiense: Segunda mitad del cuarto milenio. Llamado así por El'Amrah, al sur de Abydos; algunas veces se le llama también período de Nagada I, por Nagada, a unos veinticinco kilómetros al norte de Tebas. Figurillas primitivas de terracota y marfil; vasijas de cerámica grabadas con animales, figuras humanas y sombreados en forma de enrejado. Aparecen ocasionales vislumbres de los posteriores conceptos cósmicos, como el plato ovalado en el cual están pintadas en blanco las Montañas del Este y del Oeste, el sol matutino y vespertino y sus órbitas diurna y nocturna.

Período gerzeense: Penetra en el período histórico. Llamado así por El-Gerza, al sur de El Cairo. Es con mucho el período preliminar más importante en el norte de Egipto. La imaginación está evidentemente menos forzada, como se demuestra en los diferentes tipos de barcos con superestructuras y figuras humanas pintados en vasijas de cerámica, así como una pared pintada en Hieracómpolis, también de este período. Asimismo se perfeccionaron las paletas cosméticas.

Egipto buscaba a la sazón, ávidamente, nuevos medios de expresión y adoptaba motivos de los sumerios, más avanzados (Kantor, 1944, págs. 110-136; 1952, págs. 239-250).

EL IMPERIO ANTIGUO: El período de tanteo y búsqueda abarcó también las dos primeras dinastías, el Período Dinástico Temprano (hacia 2950-2650 a. C.; Scharff da 2850 a. C.). El gran avance tuvo lugar en la III Dinastía, corta pero gloriosa. Tan repentino estallido de inventiva como aparece en el conjunto mortuorio del rey Zoser en Saqqara raramente se ha dado en la historia de la arquitectura. La III Dinastía está incluida en la llamada edad de la pirámide debido a la pirámide escalonada de Zoser. Nosotros no queremos apartarnos de la costumbre, aunque el programa del conjunto de Zoser es completamente diferente de los ritos funerarios establecidos por los sacerdotes de los conjuntos piramidales de la IV Dinastía (2591-2473 a. C.).[8] En Gizeh, la transposición de un complicado ritual en forma arquitectónica alcanza una de las cumbres de la historia egipcia, en el siglo XXVI antes de nuestra era.

El período de declive empieza lentamente en la V Dinastía (2473-2321 a. C.) y se acelera en la VI (2321-2160 a. C.). La estructura del poder, altamente centralizada, se desintegra y con ella el Estado. Siguió el primer Período Intermedio (hacia 2134-2040 a. C.), una época de miseria y decadencia que condujo a una completa anarquía y a la aparición de poderosos señores feudales (nomarcas) en las provincias. Quien desee estudiar el estado de desarrollo en este período tiene que buscar información a partir de las tumbas de los nomarcas.

EL IMPERIO MEDIO: 2040-1785 a. C. Egipto se recuperó en el Imperio Medio, el más corto de los tres grandes períodos. Estamos ahora muy lejos de la ingenua seguridad del Imperio Antiguo, cuando, especialmente en su apogeo, todo estaba dirigido hacia una ascensión eterna. Toda la existencia había sido trastornada por la anarquía y la indigencia, y hacia finales del Imperio Medio amenazaban ya nuevas calamidades. Si se examinan los rostros de los soberanos de estos últi-

mos tiempos se descubren en ellos, profundamente grabadas, líneas de preocupación por el futuro.

Mientras tanto, sin embargo, hubo un período de peculiar intensidad, cuyas oscuras fuentes han sido recientemente aclaradas en lo posible (Winlock, 1947). Sólo tenemos indicaciones fragmentarias de los acontecimientos políticos y de las obras de arte. Tanto en el norte como en el sur solamente se han hallado vestigios aislados de los templos de la XII Dinastía, a partir de los cuales pueden deducirse sus dimensiones. Lo único que sabemos del templo de Sesostris I (1971-1929 a. C.) en Heliópolis procede de su obelisco, el primero de su clase. Su pabellón del Heb-Sed, cerca del templo de Karnak, de columnas grabadas con los más delicados relieves, fue hallado roto y enterrado debajo de un pilono de la XVIII Dinastía, y fue cuidadosamente montado de nuevo.

La reunificación de los Dos Países partió del Alto Egipto, llegando el impulso desde Tebas. Las luchas internas entre los nomarcas, los soberanos de Tebas, y los reyes de Heracleópolis acabaron con Mentuhotep II. Fue él quien de nuevo unificó el reino, en 2040 a. C., manteniéndolo firmemente unido a través de los cincuenta años de su reinado. Sólo unos pocos años después de su muerte expiró también la corta XI Dinastía.

La tumba de Mentuhotep es la *más* importante de las del Imperio Medio si se juzga desde el punto de vista de la originalidad. Se halla en un valle en Deir el-Bahari, junto al templo mortuorio de la reina Hatsepsut, muy posterior. Está concebida de forma intermedia entre las tumbas de los nomarcas y el templo mortuorio de Hatsepsut.

En la XII Dinastía (1991-1785 a. C.), el rey Amenemes I abandonó su residencia en el norte para construirse una nueva capital al sur de Menfis, cerca de la entrada al Fayum. La idea de realeza había perdido algo de su divinidad. Los Amenemes y los Sesostris llevaron a cabo intensos proyectos de repoblación de tierras. Construyeron canales y transformaron la zona en torno al Fayum en una región fértil.

El *genius loci* se impone por sí mismo. Por última vez, en el norte, las tumbas reales adoptan la forma de pirámides. Pero faltaban los medios para crear una construcción sólida que respondiera a la convicción de que el dios-rey era el intermediario indispensable para la vida eterna. Las pirámides de ladrillo de Lisht y Dahshur, erigidas a la vista de las pirámides de Snefru, no sobrevivieron siquiera a su propio tiempo. Por el contrario, el piramidión de granito, la cúspide de la pirámide de Amenemes III (1842-1798 a. C.), fue recuperado intacto con muestras de los relieves, altamente refinados, de la XII Dinastía.

Después del primer Período Intermedio el arte tuvo que recuperar su dominio de las formas. Las estatuas del unificador del reino, Mentuhotep II, son todavía retrógradas. El futuro se anuncia sutilmente en los relieves rehundidos, como en la escena del aseo de la reina Kawit, con los contornos profundamente marcados. Desde el comienzo de la XII Dinastía, sin embargo, puede observarse una cierta rigidez, como en el relieve del dios Ptah abrazando al rey Sesostris I (1971-1929 a. C.), de una de las columnas del pabellón reconstruido de Karnak.

Sólo hacia finales del Imperio Medio el arte alcanzó su más alta intensidad en las esculturas de los reyes Sesostris III (1878-1842 a. C.) y Amenemes III, las más

singulares de este período. La eterna juventud característica del Antiguo Imperio ha dejado de existir. Estas estatuas no fueron colocadas en tumbas inaccesibles. Estaban situadas en el templo, como las de Gudea en Lagash (hacia 2000 a. C.). Mas no tenían los rasgos benignos pero impersonales del asiático; están a medio camino entre la inaccesible severidad de Zoser en su «serdab» y el expresionismo un tanto afeminado de los retratos de Akenatón. Su combinación de amarga experiencia y arrogante majestad no tiene equivalente en otros períodos del arte egipcio.

Este arte representa un aspecto de la vida egipcia en los comienzos del segundo milenio. Pero era distinto en el dominio de la vida privada. Aquí, en los relieves, pinturas y joyas, surgió una rara delicadeza. La pintura y la joyería alcanzaron asombrosas sutilezas de colorido. Esto aparece, por ejemplo, en la pintura de las paredes interiores de un arcón de madera de Deir el-Bersheh, en Egipto central (Museo de Bellas Artes de Boston), donde pájaros, frutas y ofrendas están pintados directamente sobre la madera de cedro marrón en colores cálidos y brillantes, dejando intacta la madera entre las pinturas. El arte con que se aplica el color da una notable transparencia a los objetos, tal como se logra hoy mediante el uso de técnicas similares en las pinturas de Joan Miró.

El mismo brillo aparece en las piedras coloreadas que adornan las joyas halladas en las tumbas de las princesas en Lisht. Las semitransparentes piedras preciosas incrustadas entre finos hilos de oro en los pectorales reales perforados dan brillo al plumaje de un halcón, casi como la pintura del sarcófago de madera de Deir el-Bersheh. La talla de las delgadas figuras de madera de los portadores de ofrendas hallados en la misma tumba revela la misma delicadeza que los relieves de este período. El librito de Cyril Aldred *Middle Kingdom Art in Ancient Egypt* (El arte del Imperio Medio en el Antiguo Egipto) (1950) contiene una justa valoración del arte de esta época, y W. Stevenson Smith constituye un excelente guía a través de las complejidades de su historia (1958, págs. 88-120).

EL IMPERIO NUEVO: El segundo Período Intermedio empieza tan furtivamente como el primero. Sus límites son incluso más vagos, puesto que la invasión de los hicsos sólo puede establecerse firmemente un siglo después del derrumbamiento de la autoridad central. Los hicsos, que construyeron su capital, Avaris (ahora identificada con Tanis), en el este del delta del Nilo, no constituían un grupo racial homogéneo. Han dejado poco detrás de ellos, como no sea innumerables escarabajos que servían de sello a los recaudadores de impuestos y que se hallan por todas partes en las provincias.

No se puede considerar a este «pueblo de pastores», como fueron llamados en la Antigüedad, como simples bárbaros como los kassitas, quienes en esta época estaban conquistando Mesopotamia. La avanzada tecnología de los hicsos les permitió conquistar Egipto. En su capítulo sobre «Importaciones de los hicsos a Egipto», Winlock dice que los egipcios «no eran prácticos... Los egipcios no habían hecho un solo progreso importante sobre sus antepasados ni nada práctico que pudiera hacer su vida menos dura. Estaban satisfechos de vivir como habían vivido sus antepasados, hasta que algunos extranjeros los obligaron a adoptar un nuevo modo de vida» (1947, pág. 150).

Los hicsos llevaron con ellos el caballo y el carro, tal como habían sido utilizados muchos siglos antes en Sumer. Su aportación más significativa fue el arco corto fabricado con delgadas láminas de madera, o de madera y cuerno, pegadas: que sepamos, la primera versión del contrachapado. De los hicsos aprendieron los egipcios a mejorar la eficacia técnica de sus flechas, dagas, cascos, escudos y otros instrumentos de guerra, formando de ese modo un moderno arsenal para las conquistas mundiales del Imperio Nuevo (págs. 158-163).

Se considera a veces que el Imperio Nuevo duró desde 1550 hasta 715 a. C. aproximadamente, cuando el desconocido reino nubio, lejos hacia el sur, cerca de la cuarta catarata del Nilo, extendió su dominio sobre Egipto. Pero von Beckerath considera más correcto terminarlo al final de la XX Dinastía (1080 a. C.) El gran período del Imperio Nuevo abarcó las XVIII y XIX Dinastías (hacia 1550-1198 a. C.). Incluyendo los años de transición, duró alrededor de medio milenio, pudiendo comparársele en extensión y brillantez con el Imperio Antiguo. Estos dos períodos sobre todo encarnan el lado creativo del carácter egipcio.

La XVIII Dinastía: Desde la época de Ahmés (1552-1527 a. C.), que expulsó a los hicsos, los tutmósidas de la XVIII Dinastía constituyen una serie de soberanos de personalidad bien definida. Tutmosis I avanzó sobre los nubios y los hizo retroceder casi hasta la cuarta catarata. También comenzó la construcción del grandioso templo de Amón en Karnak. Su hija, Hatsepsut (1490-1469? a. C.) introdujo el concepto de planificación a gran escala y a largo plazo. Tutmosis III, que destruyó mucho de lo que Hatsepsut había construido, erigió su salón de ceremonias (Akh Menou) al este del complejo de Karnak: tal vez lo más avanzado en técnica estructural logrado por Egipto.

El templo mortuorio de la reina Hatsepsut en Deir el-Bahari revela maestría en el tratamiento del espacio, adaptación a un paisaje amplio, y una gran independencia arquitectónica. Nunca volvería a lograr la arquitectura egipcia un dominio de las relaciones espaciales tan majestuoso y tan hábil al mismo tiempo.

Tutmosis III presentó un dramático contraste con Hatsepsut. Conquistó la mayor parte de Asia occidental y bajo su reinado las fronteras de Egipto se extendieron más lejos aún que bajo los ramésidas. Tutmosis III logró el predominio mundial de Egipto durante más tiempo que Babilonia o Asiria.

Las dimensiones y las colosales estatuas de los templos mortuorios del rey Amenofis III (1400-1362 a. C.) presagiaron la escala gigantesca de los ramésidas.

En el templo de Luxor, también dedicado a Amón, los relieves de la parte más interna —como los del templo mortuorio de Hatsepsut— satisfacían el deseo de demostrar el origen divino del monarca. Como siempre en Egipto, los relieves ofrecen lo más sutil del arte del período. En las tumbas de altos funcionarios tebanos tales como Ramose, los relieves alcanzan una delicadeza insuperable.

Después del breve intervalo de Akenatón (Amenofis IV) y su período amarniense (1362-1345 a. C.), se inauguró la nueva dinastía.

La XIX Dinastía: Los ramésidas procedían de Avaris (ahora identificada con Tanis), la cual reconstruyeron como capital. Constituyeron la última dinastía de renombre mundial. Ramsés II (1290-1244 a. C.) domina sobre los demás reyes de la dinastía. Como ocurre generalmente, es difícil establecer fechas exactas. Se sabe que Ramsés II reinó durante sesenta y seis años, y en recientes estudios Parker ha

demostrado que con respecto a su reinado se pueden establecer dos cronologías diferentes: 1304-1238 a. C., y 1290-1224 a. C. Por razones históricas, von Beckerath acepta la última fecha: 1290-1224 a. C. (1961, pág. 30).

A través de su largo reinado Ramsés II fue igualmente famoso como general y fanático constructor. Todavía existen huellas de sus obras por todo Egipto. La más colosal fue la realización de la gran sala hipóstila de Karnak. Las dimensiones monumentales eran el rasgo más sobresaliente, pero no existía, como en el Imperio Antiguo, la tendencia a la monumentalidad por reducción a los elementos esenciales más puros. Ahora los elementos individuales de la construcción adquieren dimensiones colosales, como, por ejemplo, las columnas de la gran sala hipóstila de Karnak. No solamente las colosales estatuas de Ramsés II se extendían desde Menfis hasta Tebas y Nilo arriba hasta el templo rupestre de Abu Simbel, sino que incluso los relieves que rodeaban la gran sala hipóstila de Karnak adquirieron un tamaño gigantesco. Sólo cuando la escala se reduce, como en la figura de la reina, que apenas llega a las rodillas del coloso de Ramsés, la gracia de los antiguos egipcios brilla de nuevo.

Después de la muerte de Ramsés II (1224 a. C.) la curva del destino de Egipto desciende rápidamente. En la siguiente XX Dinastía (1198-1080 a. C.) nueve reyes más llevaron el nombre del gran Ramsés, pero sólo destacó uno de ellos: Ramsés III (1195-1164 a. C.). El fue el constructor del templo y palacio de Medinet Habu, en el cual la tradición del Imperio Nuevo perdura en las proporciones humanas de las pinturas y en el hermoso tejido de relieves que cubre las paredes.

EL MILENIO FINAL: La cultura egipcia no llegó a un final brusco, manifestándose más fuerte que sus conquistadores. Después de la caída del Imperio Nuevo, el fraccionado país fue regido por los sacerdotes-reyes de la ciudad sagrada de Amón, en Tebas, y por el reino de Tanis en el norte (Montet, 1952). Siguieron los faraones libios y nubios: la XXII y la XXIII Dinastías en Bubastis. Luego llegaron los nubios (kushitas) de la XXV Dinastía. Estaban educados como reyes etíopes, pero la influencia egipcia fue decisiva y todos adoptaron la cultura de las clases dirigentes egipcias.

Período saíta: 664-525 a. C. El fenómeno más interesante del Período Tardío fue la XXVI Dinastía, de la ciudad de Sais, en el delta. Estos soberanos, probablemente de origen libio, dieron temporalmente nueva vida a las mejores tradiciones egipcias. Cabe entender el interés de los saítas por el arte del Imperio Antiguo y por los retratos del Nuevo como un mero arqueologismo neutro, lo mismo que el esmero con que reconstruyeron monumentos del Imperio Antiguo, creando incluso nuevos accesos a la tumba de Zoser debajo de la pirámide escalonada. Pero hubo más que esto. No debería confundirse el período saíta con el resurgir de la Antigüedad en el Renacimiento o con la indagación de los estilos de todos los períodos pasados que se llevó a cabo en el siglo XIX. El período saíta estuvo empeñado en el intento, desesperado pero muy interesante, de impregnar de pasado el presente, con objeto de crear una nueva continuidad. Que la situación real de Egipto en la época a que nos referimos condenara al fracaso este esfuerzo es otro asunto. Faltó el impulso para inaugurar un cuarto gran período en Egipto.

Las estatuillas de bronce de animales, hechas para ser colocadas como ofrendas

votivas en los templos, como por ejemplo halcones o ibis (el pájaro de Thot), o las numerosas esculturas de gatos dedicadas a la diosa Bastet, que encerraban momias de gatos, demuestran que no se trataba simplemente de una imitación epigónica. Dichas esculturas forman parte de la revitalización del culto de los animales en el período saíta y eran productos tipificados. Sin embargo, la tradición cultural egipcia se perpetuó en ellas; no tanto expresan el aspecto externo del animal como su esencia característica. Ningún gato tuvo nunca exactamente las proporciones de los gatos de Bastet o estuvo sentado tan derecho, pero son precisamente esos rasgos los que les confieren su atractivo. *fig. 9*

La investigación en el arte y en la psicología del período saíta y de la fase final de la evolución egipcia es hoy de sumo interés para nosotros. Esta investigación está empezando todavía (Bothmer, Müller y De Meulenaere, 1960).

Hubo más de un siglo de dominio persa. Hubo la conquista de Alejandro Magno. Luego transcurrieron tres siglos bajo los Tolomeos. Finalmente, Egipto se convirtió en provincia romana.

El aspecto más notable es la persistencia de la estructura religioso-cultural, que se mantuvo durante cerca de un milenio después del final del Imperio Nuevo. Traducido a nuestros tiempos abarcaría desde la época de Carlomagno hasta el siglo XIX: en otras palabras, todo el período de la civilización europea desde mediados los tiempos oscuros medievales hasta la Revolución Industrial.

La cultura egipcia absorbió a todos los conquistadores tan pronto como cayeron bajo su sortilegio. Incluso bajo el dominio de soberanos extranjeros como los hicsos (XV y XVI Dinastías) y los persas (XXVII Dinastía), la sucesión de las dinastías egipcias fue continua: desde la I hasta la XXX.

La imaginación mitopoyética de los egipcios fue lo que mantuvo la gran vitalidad de su civilización. La idea de realeza cambió desde el concepto de la divinidad real de la edad de la pirámide hasta el concepto del rey como instrumento del favor de los dioses en el Período Tardío. Pero la tradición de realeza persistió hasta el final y con ella las relaciones directas del rey con los dioses. Alejandro Magno, los reyes tolemaicos, y los emperadores romanos hasta Domiciano, asumen todos ellos los gestos y las vestiduras rituales de los faraones y se presentaron ante los dioses como los grandes soberanos del antiguo Egipto.

Segunda parte:
Los cascarones de la prehistoria

El problema de la constancia y el cambio adquiere una considerable extensión durante las primeras civilizaciones arcaicas, las cuales surgen en Egipto y Sumer en el curso del cuarto milenio a. C.

El problema ya no concierne sólo a la constancia y el cambio dentro de ciertas fases de la cultura, como en la prehistoria, no obstante su mucha duración. Con el advenimiento de las civilizaciones arcaicas surgen las siguientes preguntas: ¿Qué tradiciones prehistóricas perduran todavía en Egipto y Sumer? ¿Qué ha cambiado y qué es radicalmente nuevo?

Un fuerte vínculo que nunca se rompió totalmente unía las primeras civilizaciones arcaicas con la prehistoria. Kurt Sethe, que publicó los Textos de las Pirámides, abre su libro *Urgeschichte und älteste Religion der Ägypter* con estas palabras «Se ha dicho legítimamente del pueblo egipcio que, al contrario que otros pueblos, no se separó nunca del cascarón» (1930, pág. 1). La opinión de Sethe es que los egipcios siempre se aferraron a sus ideas originales y no tuvieron ninguna dificultad en yuxtaponer lo viejo con lo nuevo y viceversa.

Tal vez se debería ir más lejos aún: los egipcios nunca se desprendieron completamente del cascarón de su prehistoria. El vínculo que los unía con su evolución prehistórica nunca se rompió del todo. Verdaderamente, esta relación continua era la base de su carácter, lo cual explica lo que para nosotros es en gran parte incomprensible: la inseparabilidad de lo probable y lo improbable, lo lógico e ilógico, la ciencia y el misticismo. Del mismo modo, los lazos internos entre el mundo animado y el inanimado, entre hombres, animales, plantas, materia y cosmos, nunca se rompieron. Mentalmente esto no es difícil de comprender, pero emocionalmente es un mundo en el que no podemos entrar.

Para los egipcios, lo animado tiene relaciones con lo inanimado: lo vivo con lo muerto.

Su adoración por los animales refleja su adoración por todo lo que está imbuido de vida. Esta importante tradición primitiva acentuó la comunión directa con el mundo animal. En otras palabras, la aceptación de la relación entre sociedad y especies naturales, la reverencia por los animales se mantuvo, como A.R. Radcliffe-Brown (1952) ha descubierto que se mantiene hoy entre los pueblos primitivos. Sin embargo, en las primeras civilizaciones arcaicas, esta tradición experimentó una evolución especial con la creación de un nuevo mundo de dioses.

La actitud de dichas civilizaciones hacia los animales constituye su más fuerte vínculo con la concepción prehistórica de la unidad de todo lo vivo. Las consecuencias surgidas de esto son evidentes en todas partes.

Los hombres de hoy, con la aceptación firmemente arraigada de la supremacía del hombre y su dominio sobre las plantas y los animales, con nuestra religión basada en el Libro del Génesis y nuestra lógica basada en la lógica de los griegos, encontramos las ideas egipcias tan ilógicas como insostenibles: así la identificación del dios de la creación (Atón) con un lagarto, o la identificación del dios solar (Ra) con un escarabajo pelotero. Que esta identificación de los dioses supremos con las criaturas más insignificantes fuese posible de alguna manera, revela una imaginación arraigada en un mundo cerrado para nosotros, un mundo en el cual un vínculo intacto ligaba criatura con criatura, expresado no solamente como una representación pictórica sino como una realidad sagrada. Solamente si com-

prendemos la convicción religiosa según la cual no era posible ninguna discriminación dentro del reino de la materia viva, podemos comprender que un insignificante insecto y la divinidad cósmica pudieran ser uno y el mismo.

El animal y el símbolo mantienen su dominio antes del advenimiento del organizado mundo de los dioses. La adoración de los animales desapareció definitivamente con el ascenso de la *Weltanschauung* primero griega y luego cristiana.

En los primeros períodos históricos los animales no estaban diferenciados en grandes y pequeños, nobles e innobles. Los animales, que en tiempos posteriores fueron casi ignorados, eran objeto entonces de una veneración divina o estaban identificados teológicamente con los dioses como sus manifestaciones terrenas.

Originalmente, los cuatro dioses masculinos del Ogdoad creados en el centro religioso de Hermópolis eran ranas, y los cuatro femeninos serpientes. Los ciempiés tenían su santuario. Los escorpiones eran los acompañantes de Isis, quien se presentaba «bajo la forma de una diosa-escorpión» (Kees, 1941, pág. 59). Selkhit, la enigmática diosa de la muerte, que desde la Montaña del Oeste cogía al sol poniente en sus brazos, es presentada como un busto femenino sin cabeza, con brazos iguales a los de un escorpión, y al comienzo del Nuevo Imperio es representada enteramente como un escorpión (Jéquier, 1946, págs. 240-241).

El negro escarabajo pelotero que a la sazón corría por todas partes sobre las arenas del desierto como lo hace hoy, empujando ante él una bola de excrementos, era Khepri, el que se creó a sí mismo, identificado con el sol matutino. La bola de excrementos era la bola del sol levantada en alto entre sus patas delanteras, puesto que el escarabajo era «la manifestación terrenal del informe [supremo] dios Atón» y estaba, posiblemente desde los mismos comienzos, relacionada con el «monte primitivo» en Heliópolis, «el primer lugar firme del principio del mundo que se separó del caos del océano primordial Nun» (Kees, 1941, pág. 215).

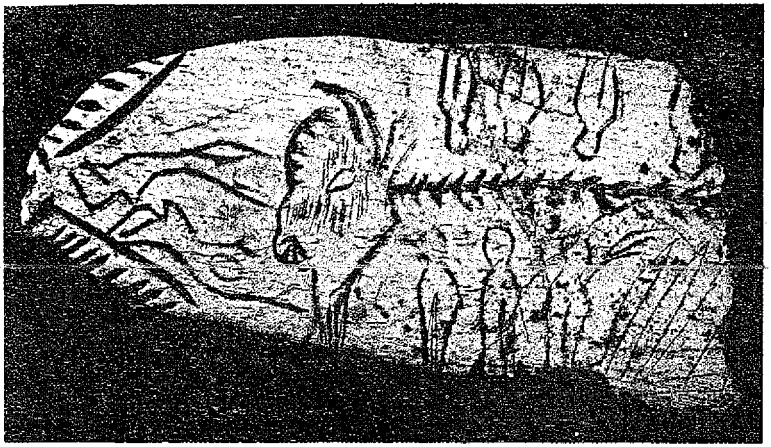
Tenemos que enfrentarnos inmediatamente con esta pregunta: ¿Qué formas atravesó el culto de los animales durante las primeras civilizaciones arcaicas? Fue en la adoración de los animales individuales donde la tradición prehistórica perduró con más fuerza. Más tarde el culto de los animales experimentó un cambio: el animal adquirió la divinidad. Un animal especialmente elegido llegó a ser la encarnación de un dios antropomórfico y, por lo tanto, el dios mismo. La evolución egipcia, con su culto más intenso de los muertos, presenta mejores pruebas de esta tradición que la evolución de Sumer.

Sumer, sin embargo, nos ilustra con más profundidad sobre la continuación de la imaginación prehistórica en la posición ocupada por los híbridos. Los híbridos, criaturas compuestas, surgen en épocas primitivas del deseo de los hombres de establecer contacto con los poderes invisibles con los cuales estaba entrelazado su destino. En Sumer las inagotables variedades de formas híbridas prehistóricas quedaron reducidas a unos pocos tipos. Los animales híbridos incorporaban por acumulación los poderes de las diferentes criaturas que los componían, como el pájaro Imdugud, que tenía cuerpo de águila y cabeza de leona, y los híbridos de animal y hombre, como el hombre-toro.

La continuación de la prehistoria se manifiesta también por la acentuación de los símbolos de la fertilidad. En este contexto, nos referiremos a la figura femenina como símbolo de fertilidad y a la transformación de ídolos primitivos («Ve-

nus») en la Gran Madre diosa, así como la transformación de un animal en divinidad cósmica y antropomórfica (vaca > Hator). Un símbolo de fertilidad masculino, el itifálico dios Min egipcio, también se remonta a la prehistoria.

Finalmente, también aludiremos a las relaciones prehistóricas de uno de los conceptos teológicos más complicados: el *ka*.



3. Hueso magdaleniense grabado: Entierro de un bisonte acompañado por figuras humanas en duelo. Chancelade (Dordoña).

El animal y las altas civilizaciones arcaicas

Hemos designado el papel que representaba el animal en la prehistoria como sagrado, pero sagrado en el sentido utilizado por los pueblos primitivos. Dichos pueblos no separan lo sagrado de la vida cotidiana. No lo transfieren a la esfera celestial. Para ellos lo sagrado y lo profano van unidos: ambas esferas son sagradas. Como dijimos antes, Mircea Eliade llama a esta concepción la «ambivalence du sacré» (1949; trad. ing. 1958, pág. 26). El animal era al mismo tiempo objeto de veneración y alimento. Aunque muerto, todavía poseía un poder temible. Su espíritu seguía viviendo. Había que tomar toda clase de precauciones para no despertar su cólera y venganza. Era esencial hacer todo lo posible para asegurar su regreso a la vida. Esta relación con el animal continúa a través de todo el período primevo y, aunque va desapareciendo rápidamente, persiste hoy entre los pueblos primitivos.

La actitud ritual hacia el animal impregnaba tan profundamente el espíritu humano que sobrevivió a través de las primeras civilizaciones arcaicas, especialmente en Egipto. La veneración del animal y la creencia en su espíritu persistieron, aunque la naturaleza de tal creencia cambió al cambiar las condiciones.

En este contexto debe hacerse una distinción entre el animal individual como objeto de veneración y el animal como divinidad. El animal venerado individualmente es cualquier animal de su clase. Su existencia no acaba con la muerte. Tanto el animal muerto como el hombre muerto imponen temor y veneración, probablemente más el animal que el hombre. Existen huesos magdalenienses grabados que exhiben solemnemente festivos entierros de animales, pero todavía no se ha encontrado ninguno que represente un entierro humano.

El animal divino pertenece a las primeras altas civilizaciones. En Egipto es un ejemplar cuidadosamente seleccionado de su especie que porta signos, conocidos solamente por pocos iniciados, que indican que el animal es la encarnación personal del dios, o aún más, que mientras viva es el dios personificado. El concepto del animal divino es la imagen del dios que se refleja en él como en un espejo. Lo que los teólogos presentan como divinidad es proyectado en el ser de un animal especialmente seleccionado.

Transición del animal sagrado a la deidad

En los comienzos del período histórico hay ciertos indicios de la transición del animal considerado como sagrado al animal considerado como dios. Los animales entran en el recién emergido mundo de los dioses, o bien como encarnación de una deidad (el toro Apis, el carnero Khnum), o bien como imagen del dios en forma de animal (Thot como cinocéfalo o como ibis).

Durante el período de transición de los tiempos prehistóricos a los históricos en Egipto, cuando se comparan las representaciones de figuras humanas con las de animales, se siente el fuerte viento de la prehistoria con sus milenios de tradición. Indiscutiblemente el animal mantiene su primacía. Las figuras humanas, cuando existen, son difíciles de reconocer, lo mismo que en los períodos anteriores de la prehistoria.

Desde luego se producen unas pocas excepciones en el Primer Período, tal una cabeza de piedra caliza de la mitad del tamaño natural (Ashmolean Museum) procedente de Hieracómpolis, cuyo significado está lejos de ser claro. Unas modestas figurillas de loza, de 4 a 8 centímetros, de color verde casi malaquita, nos informan mejor. Fueron halladas en la necrópolis de Abydos, donde Flinders Petrie había desenterrado con anterioridad pequeñas estatuillas de animales y de figuras humanas del mismo material (1903, láms. 5-6). A primera vista no podemos por menos de preguntarnos si estas pequeñas figuras de forma humana pueden en efecto representar seres humanos, siendo su postura y su aspecto tan parecidos a los de un animal. Pero en una inspección más detallada se reconocen claramente la frente y la nariz, humanas aunque en forma de máscara. La figurilla masculina más grande tiene esa cabeza muy prolongada que reconocemos desde el magdaleniense. Es tan alargada hacia delante que forma una línea continua con la espalda, como la de una hiena. Los brazos descansan sobre el suelo como postes, y recuerdan las esculturas de hipopótamos del mismo período (Museo de Bellas Artes de Boston). Los dedos están representados por líneas grabadas sobre el pedestal: una antigua tradición prehistórica. Todas estas figurillas proceden de la época de la unificación de los dos reinos de Egipto, o tal vez algo antes.

La supremacía del animal aparece también en la selección de temas. En el período predinástico, los animales desempeñan un papel mucho más importante que los humanos. Las pinturas sobre pared de yeso de Hieracómpolis, que datan de finales del período gerzeense —la última fase de la prehistoria— son predominantemente de animales, aunque ya aparecen algunas figuras humanas tratadas con viveza. Los animales también predominan en los grabados rupestres de Wadi-Hammamat, el valle desértico que enlaza el mar Rojo con el Nilo. Actualmente se cree que son del mismo período.

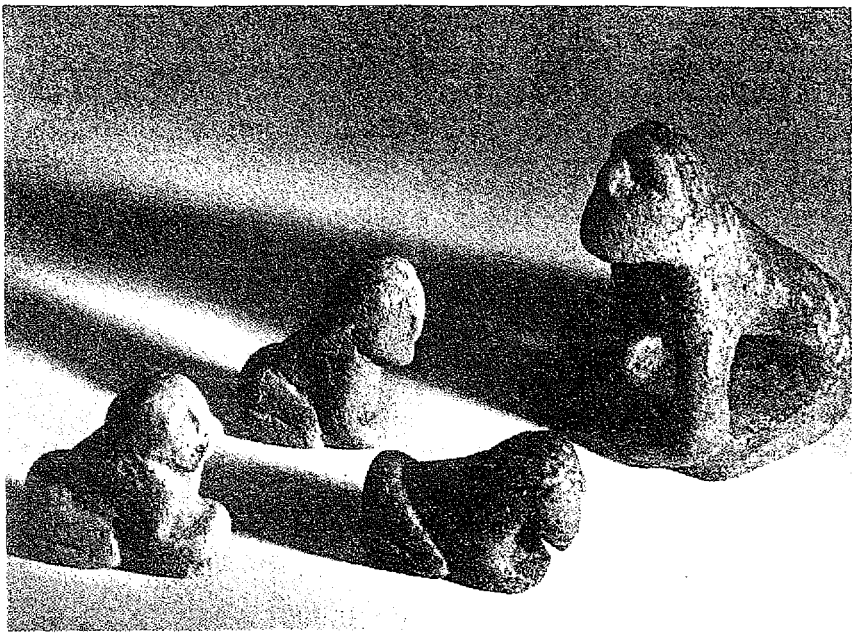
Varias de las paletas cosméticas ceremoniales de la I Dinastía carecen de figuras humanas. Una de ellas (Ashmolean Museum), hallada en el templo de Hieracómpolis, muestra un tumulto de animales salvajes de una gran vitalidad. Como en la prehistoria, los animales están dispuestos libremente en el espacio. Como quiera que no existió preocupación por organizarlos en relación con las horizontales y verticales próximas, todavía se suele hablar de su caótica falta de agrupamiento y de la ausencia de coherencia espacial. Este planteamiento llegará a ser con el tiempo tan inadmisible como la crítica de las obras prehistóricas según las reglas de la perspectiva visual. En realidad, la disposición libre es una de las últimas expresiones de la concepción espacial de la prehistoria.

Otras pequeñas e insignificantes reproducciones de animales dan una expresión más íntima de las creencias populares. Estos objetos, que sólo miden unos pocos centímetros, fueron depositados en tumbas o utilizados como amuletos para proporcionar protección o conferir fuerza. Están representadas las especies más diversas: ratones, liebres, vacas, antílopes, cocodrilos, leones, etc. En los alrededores del templo más antiguo de Abydos se encontraron muchísimos de estos animales diminutos, entre ellos bueyes sacrificiales, halcones encapirotados, cinocéfalos y ranas.

Los animales eran honrados por los atributos especiales de que se les suponía dotados. Siendo la rana —como la serpiente— una criatura ctónica que parece surgir de la tierra, era un símbolo de lo naciente y de la vida siempre renovada. Su gran fertilidad la vinculaba a la diosa del nacimiento, y posiblemente también al dios de la fertilidad, Min. Colocada en una tumba, garantizaba la vida en el más allá.

Las ocho divinidades —las cuatro parejas divinas— de Hermópolis representaban potencias primordiales, en contraste con la religión heliopolitana, basada en el sol. Estas potencias eran las que existían antes de que fuera establecido el orden universal: el océano primigenio, el crepúsculo, el espacio infinito, la nada (Bonnet, 1952, pág. 5). Como símbolos de su origen, estas deidades ctónicas tienen cabezas de ranas y de serpientes. Como dijimos antes, las ranas y las serpientes pertenecían a la amplia categoría de criaturas veneradas por sus poderes protectores. De ningún modo eran dioses.

La transición del animal sagrado a la deidad fue contemporánea al establecimiento de un mundo de dioses antropomorfos en los comienzos de la organización de Estados-imperio. Además de Hermópolis, con sus ocho dioses que incorporaban los poderes ctónicos, estaba Heliópolis, un antiguo centro religioso elevado ahora a la cumbre con el dios solar Atón-Ra como deidad suprema. Menfis, la capital recién fundada, constituía un tercer centro cuyo dios principal era Ptah,



4. Figurillas de loza representando hombres en posturas de animales. Comienzos de la I Dinastía.

«Señor del Verbo poderoso». Ptah llevó a cabo la creación mediante el poder de la palabra, en contraste con la acción de escupir o masturbarse del dios Atón de Heliópolis. Ptah, como el Faraón, instituido simultáneamente, actuaba mediante órdenes emanadas del corazón, sede de las ideas, y de la lengua, sede del habla. Ptah, el intelectual, fue una invención sacerdotal por excelencia. Se le representaba como una figura humana momificada, pero su encarnación terrenal era el toro Apis.

El dios Thot era algo diferente. Uno de los dioses más plurales —inventor del arte de escribir y escritor él mismo, protector de los escribas, fundador de la astronomía y de todas las ocupaciones intelectuales—, Thot fue un producto típico del período tardío, aunque también en él se aprecian huellas de la transición del animal sagrado al animal como deidad. Posiblemente porque sus orígenes como cinocéfalo sagrado se pierden en la noche de la prehistoria, Thot acabó siendo elevado a la jefatura de las ocho deidades de Hermópolis. A veces también aparece en forma de ibis (probablemente originaria del delta del Nilo). Su representación como cinocéfalo señala el momento en que el animal asciende a la categoría de deidad. No sabemos cómo tuvo lugar esta transición ni cuáles habían sido los anteriores atributos del cinocéfalo, pero numerosas figurillas de loza de color verde malaquita que representan a este animal, halladas en Abydos, Hieracómpolis y otros lugares, pueden fecharse en los períodos prehistórico y protohistórico.

La figura de alabastro, de 52 centímetros, del dios Thot en forma de cinocéfalo (Staatliche Museen de Berlín) marca la culminación de la transición. El dios es

5. El dios Thot en forma de cinocéfalo, generalmente llamado el Cinocéfalo de Narmer. La obra maestra escultórica más antigua de Egipto. I Dinastía.

6. Gacela momificada rodeada de vasijas. Heliópolis, período Predinástico.

7. Gacela momificada. Esna (Alto Egipto), período saíta.

presentado en forma de animal. El zócalo lleva una inscripción con el nombre apenas legible del rey Narmer, que había ofrecido la figura como exvoto. La postura del cinocéfalo es semejante a la de las pequeñas figurillas humanas de loza. Rastros de color indican que esta figura también estaba pintada de azul verdoso. La forma es todavía de bloque, abstracta. Los brazos, plantados en el suelo entre los fuertes muslos, descienden desde los hombros en una curva continua. Con las nuevas dimensiones ha surgido una nueva monumentalidad. El plano de las rodillas, que destacan con fuerza imponente, está sin embargo fuertemente integrado en el bloque. Se siente el latente vigor y los nervios rígidamente tensos, como se siente en la cabeza de león, muy posterior, del templo pirámide de Niuserre, que muestra el mismo uso magistral de los planos escultóricos.

Citemos la afortunada descripción que Hedwig Fechheimer daba de esta figura al publicarla por primera vez: «En esta forma unificada, creada con fuertes resaltes y planos encontrados, los ojos del espectador descubren plenamente la piedra cúbica primordial» (1927, pág. 88). Scharff consideró este cinocéfalo de alabastro como la primera «escultura clásica egipcia» (1939, pág. 450) y le extrañó que la escultura de animales estuviera tan adelantada con respecto a las representaciones en piedra de la figura humana. «La razón de la gran superioridad de la escultura de animales en el Primer Período debe ser estudiada con más precisión» (*ibíd.*, nota a pie de página).

Estas razones deben buscarse en el desarrollo prehistórico, durante el cual los medios de representación del animal, pero nunca de la figura humana, fueron llevados a la máxima perfección. Varios siglos tuvieron que pasar en Egipto antes de que la figura humana llegara a ser objeto de interés artístico. Hasta la IV Dinastía no se descubrió por primera vez la belleza escultórica de la forma humana.

8. Perro momificado rodeado de huesos de animales, surgido de los escombros en la pirámide inacabada. Saqqara, período saíta.

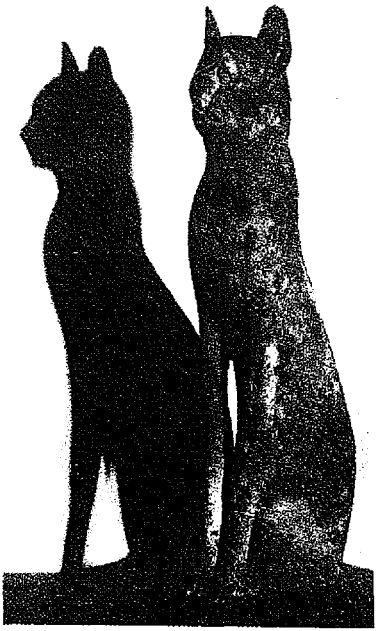
Así es comprensible que en el gran período revolucionario de la unificación de los Dos Reinos, la primera escultura monumental de Egipto a la que puede asignarse fecha fuera la deidad que aparece en forma de animal.

Veneración del animal individual

Las primeras muestras de veneración del animal consisten en algunos cráneos y fémures de oso hallados en arcones de piedra en el Drachenloch, una pequeña caverna de los Alpes suizos orientales, a 2.445 metros de altura. Dichas muestras proceden de los comienzos del período musteriense, unos 50.000 años a. C. La reverente manera en que se conservaban tenía por objeto hacer posible el regreso de los animales a la vida.

Las inhumaciones de animales de la era magdaleniense plantean la cuestión de si expresaban la veneración del animal además de propiciar su regreso a la vida.

La misma cuestión se plantea con relación a los primitivos cultos de animales en Egipto. Pocos datos ciertos se conocen sobre el período predinástico. Pero en 1950, cuando preparaba los cimientos para una nueva construcción en Heliópolis, hoy un suburbio de El Cairo, F. Debono fue a dar con una necrópolis predinástica con setenta y tres tumbas. Debono clasificó estas tumbas como «probablemente paralelas» a los períodos de Nagada II y Merimde. «La necrópolis en cuestión está situada en el extremo norte del hipódromo de la moderna Heliópolis. Los



9. Gato de bronce conteniendo la momia de un gato. XXII Dinastía o posterior.

muertos estaban cubiertos con esteras, hechas de animales» (1950, manuscritos inéditos).

Se encontraron seis tumbas de gacelas: «Fueron enterradas con el mismo cuidado, y frecuentemente con más cuidado que los seres humanos. Había restos de esteras sobre los cuerpos de algunas gacelas.» Estaban acompañadas de abundante ajuar funerario. «En una de las tumbas, la gacela estaba casi totalmente rodeada de vasijas. Esta es la primera vez que han sido hallados animales en un cementerio humano» *(ibíd)*.

En Saqqara, una necrópolis utilizada desde la época de la I Dinastía, y cerca de Abusir, la necrópolis favorita de la V Dinastía, fueron descubiertos «enormes hoyos, sinuosos pasos subterráneos y profundos pozos que contenían miles de reses, ovejas, perros, pájaros, etc.» (Gaillard y Daressy, 1905, prólogo).

La veneración del animal individual acabó solamente con el final de Egipto, extendiéndose incluso al Imperio Romano. También se le seguiría reservando un sector del cementerio humano, como en Heliópolis: «Se sabe en efecto que prácticamente en todas las necrópolis se halla junto a las tumbas [humanas] un sector reservado para el enterramiento de animales» *(ibíd)*.

El punto culminante del culto de los animales se produjo en el período saíta. El embalsamamiento, que mediante la conservación del cuerpo terrenal garantizaría la existencia posterior, pasó a ser entonces habitual para los animales. Una gacela momificada de Esna, en el Alto Egipto, muestra una esmerada artesanía. Está envuelta primeramente en bandas de tela impregnadas de una sustancia resinosa, y luego en tallos de papiro. Los cuernos y las orejas están también cuidadosamente envueltos.

Los animales momificados son tan numerosos que los excavadores los dejan sencillamente entre los escombros. Casi se tropieza con ellos. Durante la excavación de la pirámide inacabada de la III Dinastía en Saqqara, yo vi un perro momificado del período saíta surgir sorprendentemente de las ruinas.

A este último período de veneración del animal corresponden las numerosas estatuillas de gatos de bronce, todas las cuales, aparte de los detalles ornamentales, se parecen mucho. Eran productos en serie, casi fabricados en masa. El sensible modelado del cuerpo, con sus delgados miembros comprimidos en la masa y la cabeza erguida, hace que cada uno de los muchos ejemplares se presente como un raro original. Escultóricamente estas estatuillas de animales figuran entre los productos más hermosos del Período Tardío. Muchas de ellas proceden de la necrópolis de animales de la ciudad de Bubastis, la capital de la XXII Dinastía, en el delta del Nilo. La deidad local era Bastet, que algunas veces era representada con cabeza de gato, lo mismo que la deidad Sekhmet, de Menfis, con cabeza de leona.

La notable proliferación del culto de animales en el Período Tardío se debió principalmente al debilitamiento del sistema religioso controlado por los sacerdotes cuando declinó la existencia independiente del Estado. Cuando «la fuerza creadora de la teología disminuyó y por consiguiente se hizo insalvable el vacío entre las creencias populares y la teología, el culto de los animales, junto con otros elementos de creencias populares, llegó a ser el único foco de vida religiosa. La incorporación del culto de los animales a las creencias populares explica la tenacidad con que se mantuvo a lo largo de todos los cambios históricos, coexis-

tiendo con los sistemas más difundidos y los dioses más poderosos... permanece vivo en el espíritu de los pueblos y sólo desaparece con ellos» (Otto, 1938, página 58).

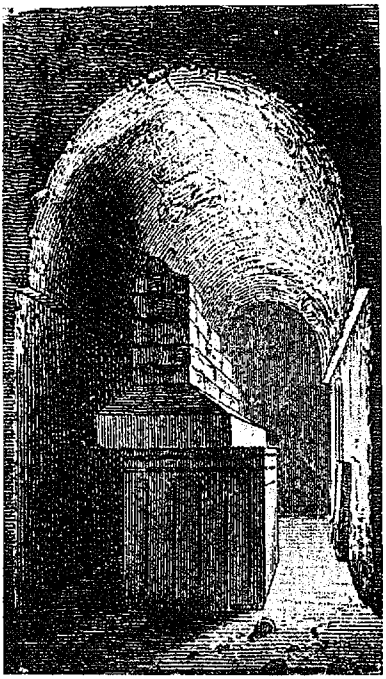
Esta actitud hacia el animal no solamente constituía una creencia popular egipcia que no podía ser desarraigada, sino que era también una prolongación de la más vieja tradición de la humanidad. La teología egipcia, que tan hábil era para adaptarse, tenía que permitir por razones externas e internas que los animales y los dioses antropomorfos se mezclaran y combinaran. Solamente la posterior proclamación religiosa de la supremacía del hombre provocó el derrocamiento definitivo del animal.

El animal como deidad

La adoración del animal en los tiempos primevos pasó por las piedras de molino de la teología y fue asimilada en el proceso antropomórfico. Como consecuencia de ello, algunos animales elegidos llegaron a ser dioses y encarnaciones de las más altas deidades. Cada animal era durante su vida el dios mismo y gozaba de igual veneración. El dios tomaba su forma. Un sagrado temor lo protegía del sacrificio. Durante el largo período del culto del toro Apis, los investigadores solamente han hallado dos menciones de su sacrificio. Herodoto cuenta (III, 29, 64; trad. ing. de Powell, págs. 211, 229) que el rey persa Cambises, que mató al animal sagrado, fue terriblemente castigado por la afrentada deidad: el rey se volvió loco y sufrió una muerte dolorosa; un destino semejante sufrió otro malvado que había comido de la carne sagrada (Hopfner, 1913, págs. 85-86). Sin embargo, Gardiner considera que lo primero es «más que improbable por la evidencia del Serapeum», donde de un sarcófago de toro se dice «haber sido dedicado, según sus inscripciones, por el propio rey» (1961, pág. 364).

El destino de todas las grandes civilizaciones es estar siempre en peligro de una excesiva especialización. Solamente varían los campos en los que esto ocurre. En Egipto, el exceso de especialización se centró en la religión. La sociedad estaba compartimentada en organizaciones profesionales encargadas de la selección y cuidado de los animales divinos. En el caso del más famoso de éstos, el toro Apis, los expertos especialmente preparados debían localizar veintinueve signos diferentes de su divinidad. Había especialistas encargados de servirle como mayordomos, otros para ataviarle en las fiestas, y había miembros especiales del clero cuya misión consistía en embalsamarlo después de la muerte. Especialistas para monos, gatos, chacales, buitres y otros muchos animales recibían formación en organizaciones profesionales distintas *(ibíd.,* pág. 21). Así la divinización del animal condujo a una burocracia ritual que cubría todas las áreas de su existencia.

Aparte de los pocos animales elegidos que eran proclamados encarnaciones directas de deidades, había otros que disfrutaban de la posición de animales del templo, sagrados e inviolables (Wiedemann, 1912, págs. 22 y ss.). Estos animales no eran encarnaciones de dioses, y por lo tanto no eran divinos, pero no podían ser sacrificados ni ofrecidos en sacrificio. «Se consideraba que tal acto era merecedor de la muerte» (Hopfner, 1913, pág. 22). Tampoco se permitía que se pudrieran, sino que eran embalsamados y enterrados en fosas comunes.



10. Sarcófago de Apis en el Serapeum de Saqqara. XIX Dinastía. Según Mariette.

Las encarnaciones de dioses en Egipto iban desde el león y el cocodrilo hasta la musaraña, pero los cultos principales estaban limitados a animales domésticos, cosa comprensible en un pueblo agrícola. El toro ya no era el toro salvaje, ni el carnero era el carnero salvaje que, con sus enormes cuernos curvos, había aparecido en las primitivas cerámicas del Irán y en los cilindros-sellos de Sumer para conferir fuerza a los difuntos. Pero por lo que se refiere a los cultos principales se elegía todavía a los mismos animales —el toro y el carnero— a causa de sus poderes procreadores y por su fecundidad. En el primer plano de este culto sacerdotal se halla el toro: Apis, el toro blanco de Menfis, Mnevis, el toro negro de Heliópolis, y otros toros de menor renombre.

Apis: un proceso de inversión

El animal como divinidad representa un proceso de inversión que relaciona los dioses antropomorfos recientemente creados con los cultos primevos de animales y permite al animal asumir el ser de una deidad a la que personificará durante su vida. El culto del toro Apis, que abarca un período más largo que la era cristiana, demuestra con qué fuerza el animal continuaba siendo la fuente religiosa primordial. La veneración del toro, que surge en los tiempos prehistóricos

11. Relieve de Apis, el toro divino, situado sobre un pedestal delante de un escriba que le rinde culto. De un sarcófago de la XIX Dinastía. Serapeum de Saqqara. Tomado de Mariette.

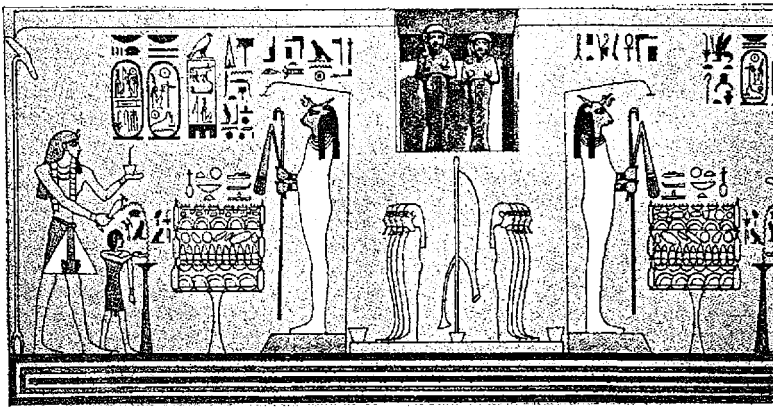
—como lo prueban los colosales toros pintados en la cueva de Lascaux— existía en el Egipto predinástico. Varios nomos, o provincias, lo tenían por animal sagrado y exhibían su símbolo en sus estandartes. Incluso en la I Dinastía, un *ostracon* muestra un dibujo del toro Apis con su aspecto característico (Otto, 1938, pág. 11). El toro Apis era conducido a las tierras sembradas para hacerlas producir, en una ceremonia llamada la «Carrera de Apis». Este ritual está reproducido en una escudilla de pórfido de Horus Aha, en una inscripción temprana de la I Dinastía (Simpson, 1957, págs. 139-142).

En Egipto el toro era venerado por sus poderes procreadores, lo cual es diferente de la función del hombre-toro sumerio, que era fundamentalmente el protector del ganado.

El desarrollo monumental del culto de Apis tuvo lugar en el Imperio Nuevo y continuó hasta el final del período tolemaico, requiriendo numerosas construcciones. El lugar de enterramiento, el Serapeum, en Saqqara, estaba situado en medio de la necrópolis más antigua de los reyes egipcios, y da testimonio de la forma más elaborada a que llegó el culto de los animales.

Antes de que Auguste Mariette descubriera la entrada a las catacumbas de los enterramientos de Apis en 1851, dio con una pequeña esfinge que permanecía enterrada en la arena en sus tres cuartas partes (hoy en el Louvre). Mariette siguió la descripción de Estrabón y dedujo inequívocamente que esta esfinge constituía el comienzo de una avenida que bajaba al Serapeum. El camino hacia las puertas de entrada estaba también marcado por pilonos. Mariette se halló entonces en un largo pasillo: a derecha e izquierda había sarcófagos de toros bajo altas bóvedas de cañón excavadas directamente en la roca (1855). Se encontraron tumbas que databan de la XVIII Dinastía, de la época de Amenofis III, fundador del templo de Luxor, y sus sucesores. En la XIX Dinastía, bajo Ramsés II (1290-1224 a. C.), estos enterramientos alcanzaron un esplendor asombroso.

Casi todos los sarcófagos habían sido violados y estaban vacíos cuando Ma-



12. Relieve de Apis en la forma momificada del dios Ptah con cabeza de toro; ante él Ramsés II y su hijo. Serapeum de Saqqara. Tomado de Mariette.

riette los encontró. Sólo una tumba permanecía intacta. En ella descansaba una momia de Apis que llevaba un pectoral de Ramsés II (hoy en el Louvre). La atmósfera de beatitud que envolvía a esta ciudad mortuoria era tan intensa que el hijo de Ramsés II, Khaemuast, sumo sacerdote de Ptah en Menfis, fue enterrado en el mismo lugar.

Los sarcófagos de los toros Apis momificados estaban hechos de sienita, basalto o piedra caliza. Sus dimensiones eran insólitas: de 3 a 4 metros de altura y de 4 a 5 metros de longitud, con un peso de más de 60 toneladas. En el registro superior de uno de los relieves, el toro Apis, en posición de marcha, se halla sobre un pedestal con el disco del sol y el úreo entre los cuernos. Ante él hay una flor de loto. Un escriba real, en posición adorante, está junto a una mesa de ofrendas. Sobre Apis se cierne Udja, el ojo de Horus, con cuerpo de buitre. En otro registro inferior el escriba adorante aparece una vez más con un colega.

Sobre otro sarcófago, Apis tiene la forma momificada del dios Ptah con cabeza de toro. Ante él el faraón Ramsés II y su hijo Khaemuast hacen ofrendas.

¿Cómo era la vida del toro Apis? Alguna información ha salido a la luz recientemente. Dentro de los muros del templo de Ptah en Menfis, el historiador de la arquitectura Alexander Badawy descubrió la planta del lujoso palacio en el cual el toro Apis pasaba toda su vida y en el que era embalsamado. En 1954, John Dimick, del University Museum de Filadelfia, descubrió los aposentos del toro y la gran mesa de alabastro que servía para su embalsamamiento (1958, pág. 183). En el santuario fue hallada una cartela de Ramsés II y pudo comprobarse que en el siglo V a. C. se había emprendido una renovación completa, otra indicación más de la indeclinable veneración de Apis en el Período Tardío.

Apis, el toro blanco, que era una deidad a lo largo de toda su vida, ofrece el mejor ejemplo del proceso de reflexión invertida. La deificación de cada ejemplar de este animal respondía a la creencia de que ciertas señales distintivas demostraban que era la encarnación del dios Ptah.

Apis era el resultado de la especulación sacerdotal y de las creencias populares (Otto, 1938, págs. 23-24). A través de la interrelación de Ptah y Apis la popularidad del animal fue puesta al servicio de una divinidad animal teológicamente superior (pág. 25). «No fue simplemente un hábil golpe artístico de la clase sacerdotal, sino un resultado del modo de pensar egipcio» (pág. 32).

La magia derivada del reconocimiento de Apis como dios sobre la tierra se manifestó en la continua expansión de sus poderes. Además de ser encarnación de Ptah, Apis fue absorbiendo gradualmente a otros altos dioses. Encarnó al creador original, Atón, convirtiéndose en Apis-Atón, y finalmente absorbió a Osiris, dios de la vegetación y de la muerte: «La unión más fructífera de Apis fue con Osiris ...entre estos dos dioses de la fertilidad había un vínculo natural» (pág. 27). Como consecuencia de esta unión, Apis también adquirió el carácter de dios de la muerte.

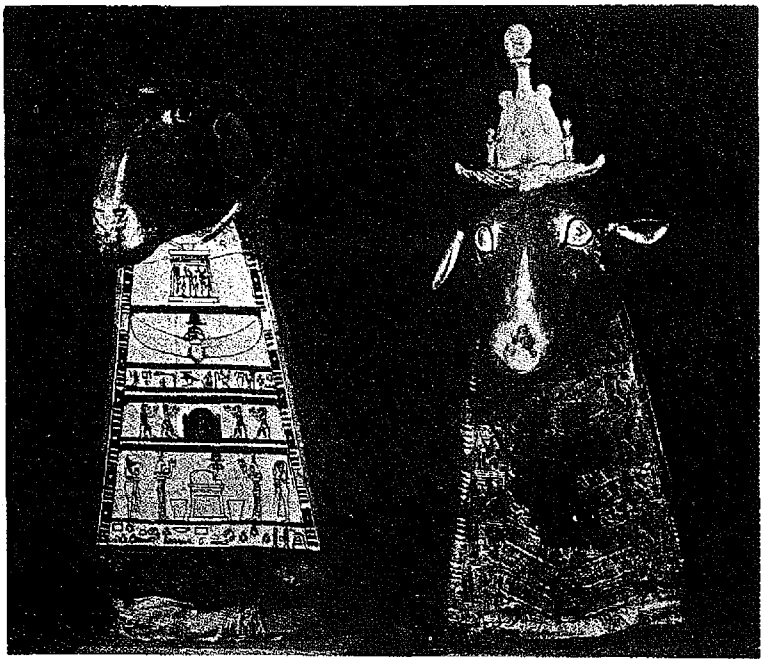
Cuando los griegos asumieron la creencia en Apis surgió un nuevo dios: Serapis. «Este nombre es la forma griega del Osiris-Apis egipcio... Este dios, reverenciado tanto por los griegos como por los egipcios, fue utilizado por Tolomeo I... para crear un culto a Serapis que unió a ambos pueblos en la nueva capital de Alejandría» (pág. 29).

Durante las últimas fases de la historia egipcia, este culto se afirmó cada vez más como centro de la religión. Por consiguiente era comprensible que los Tolomeos continuaran los enterramientos de Apis en el Serapeum.

El culto del carnero

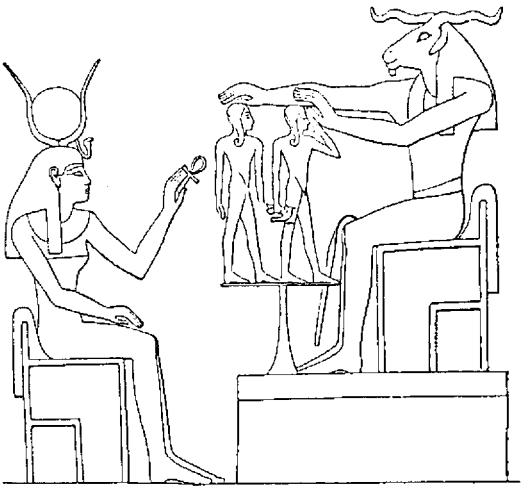
El culto del carnero fue también extenso e importante. El santuario de este culto situado más al sur era la isla de Elefantina, rodeada por los rápidos de la Primera Catarata. Allí el dios Khnum, de cabeza de carnero, era «Señor de las aguas oscuras» —es decir, de la catarata— y por lo tanto guardián de las fuentes del Nilo (Badawy, 1937, pág. 22). Que los carneros eran honrados como encarnación del dios queda claro por las apretadas hileras, en la necrópolis, de sarcófagos de granito conteniendo carneros momificados. Las momias tienen cuernos dorados y llevan sobre el pecho placas pintadas que indican el parentesco del carnero deificado con la soberana de la localidad.

En el Imperio Nuevo, Khnum fue también un creador-dios. En la Sala de los Nacimientos del santuario cerrado del templo de Luxor existe un relieve que muestra a un dios con cabeza de carnero y cuerpo masculino modelando sobre un torno al recién nacido Amenofis III y su *ka*.



13. Carnero momificado encarnando al dios Khnum, revestido de una placa grabada con escenas de culto. Elefantina (Alto Egipto).

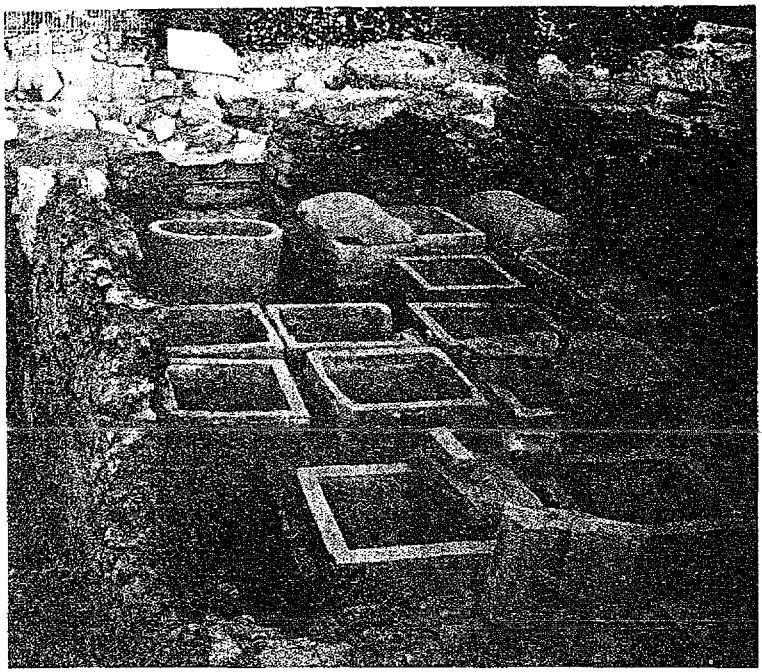
Khnum estaba también relacionado con el dios supremo del Imperio Nuevo y llegó a ser absorbido por él. Al visitante del centro religioso de Tebas se le recuerda constantemente el importante papel desempeñado por el carnero como personificación del dios estatal Amón-Ra. La larga avenida que conduce al gran templo de Amón-Ra en Karnak está flanqueada por pobladas filas de carneros-esfinges: sus cabezas llevan los cuernos planos en espiral de la oveja doméstica y tienen cuerpo de león. La barca sagrada que transportaba la estatua deificada de Amón-Ra llevaba cabezas de carnero doradas en la proa y la popa. En la barca del sol el dios Ra, a medianoche, tomaba la forma de un carnero sentado dentro del disco solar.



14. Khnum como dios creador, modelando en un torno a Amenofis III y su ka. *De un relieve de la XVIII Dinastía en la Sala de los Nacimientos del templo de Luxor. Dibujo de Schwaller de Lubicz.*

Hasta los conquistadores extranjeros de Egipto —tanto los persas como los griegos— cayeron bajo el inquietante sortilegio de los poderes que emanaban del culto de los animales. No solamente los reyes tolemaicos trataron con gran honor a los animales divinos y garantizaron la exención de impuestos a las regiones protegidas por ellos (Hopfner, 1913, pág. 95), sino que el propio Alejandro Magno se representó como hijo de Amón-Ra y acuñó monedas en las que aparecía con cuernos de carnero (pág. 91).

El carnero era un símbolo primitivo de fecundidad a causa de sus extraordinarios poderes generadores: «El carnero sagrado dentro del templo es una encarnación del dios de la potencia genésica, como queda de manifiesto en el animal de Menes [uno de los grandes centros del culto], donde las mujeres se desnudaban ante él e incluso tenían relaciones sexuales con él», como cuenta Theodor Hopfner basándose en varios escritores clásicos (pág. 95).



15. Sarcófagos de carneros. Necrópolis de Elefantina (Alto Egipto).

El animal y los distintivos de la dignidad

La continuidad de la veneración primeva del animal puede percibirse frecuentemente en las primeras civilizaciones arcaicas. Los atributos del animal constituyeron un signo de dignidad y poder entre lo más elevado de la jerarquía social. El faraón llevaba un rabo de toro en el cinturón con ocasión de las grandes fiestas: «El *sed-heb* o 'fiesta del rabo', donde el rey era investido con éste, constituía una de las ceremonias reales más importantes. Una danza sagrada, interpretada por el Faraón... aparece a menudo representada en el interior del templo, delante de Min, el dios de la generación humana» (Murray, 1952, pág. 26).

Los sacerdotes egipcios se ponían una piel de pantera cuando desempeñaban sus funciones sagradas. En los cilindros-sellos mesopotámicos, los sacerdotes de Enki, dios de las profundidades de las aguas, eran recubiertos con una forma de pez, sirviendo la cabeza como una especie de tiara. Todas estas son reliquias prehistóricas que pretenden ennoblecer diferentes clases de dignidad mediante la adopción de una *Gestalt* animal.

En Mesopotamia la corona con cuernos se mantuvo con especial constancia como símbolo divino. En la prehistoria el cuerno era un símbolo de fuerza y fertilidad, como aparece por primera vez en la mano izquierda levantada de la Ve-

nus de Laussel. La corona con cuernos continuó siendo un símbolo de los dioses antropomorfos de Mesopotamia a través de toda la cambiante historia de este país. En las esquinas del templo superior del zigurat se colocaban cuernos indicativos de que ésta era la residencia de la deidad.

La razón por la cual fue Mesopotamia y no Egipto la que mantuvo el cuerno en tan alta estima se encuentra en una tradición muy primitiva. Una característica llamativa de la cerámica del cuarto milenio de Mesopotamia (Samarra) e Irán (Susa, Sialk, Tepe Musian) es el predominio del animal. Y se cargaba todo el acento sobre los cuernos, suprimiéndose a veces el cuerpo casi por completo. Los cuernos, como los del íbice, que se repiten frecuentemente, no eran sólo símbolos de fertilidad. También se creía que poseían un poder secreto de regeneración de la vida. «La posición de una deidad en el panteón babilónico se mostraba por el número de cuernos que llevaba. Los grandes dioses y diosas tenían siete cuernos» (*ibíd.*, pág. 25).

16. Esfinge representando a Amón-Ra, con cabeza de carnero y cuerpo de león, protegiendo al rey entre sus patas. De la avenida oeste de las esfinges, de Karnak.

El bisonte conserva una posición prominente en la mitología de ambas civilizaciones arcaicas, y es fácil comprender que el cuerno del bisonte fuera introducido en el mundo antropomórfico de los dioses como símbolo de especial dignidad.

La desaparición del culto del animal

En Egipto concluyó definitivamente uno de los capítulos más largos de la historia de la humanidad: la veneración del animal. Dicha veneración disminuyó gradualmente durante las épocas finales de Egipto, después de un último destello durante el período saíta (664-525 a. C.), respecto del cual la actitud de las fuentes griegas difiere de la de las posteriores romanas.

Herodoto, que visitó Egipto en el siglo V a. C., y por lo tanto poco tiempo después del período saíta, concede un considerable espacio al examen objetivo de la veneración de los animales en aquel país. Y hasta Plutarco, en el siglo I de nuestra era, ve el culto de animales como «el resultado de la más profunda especulación filosófica» (Hopfner, 1913, pág. 4). En un trabajo muy completo sobre los cultos de animales en el antiguo Egipto, Hopfner facilita una lista de los pasajes más importantes sobre el tema en escritores clásicos, desde Herodoto a Eliano, hacia el año 200 de nuestra era (págs. 10-11, 187-190). A partir de la lista de Hopfner se puede observar cómo la actitud romana empieza a cambiar hacia los comienzos de la era cristiana. El jurista Cicerón y el naturalista Plinio el Viejo consideran los cultos de animales con severidad o con desprecio.

El ataque decisivo procede de los dogmáticos judeocristianos. En palabras del filósofo judío Filón de Alejandría (muerto hacia el año 50 d. C.): «¿Puede existir algo más ridículo que este culto? Naturalmente los extranjeros que llegan a Egipto por primera vez tienen que ponerse enfermos de risa» *(ibíd.*, pág. 4).

Siguió a esto la condena de los escritores clericales así como de los padres de la Iglesia, tales como Juan Crisóstomo (siglo IV d. C.), para quienes los cultos de animales eran una mera estupidez. Todo esta oposición era esencial desde el punto de vista del dogma cristiano, puesto que los cultos de animales, como parte de la unidad inseparable del mundo, se oponían a la concepción espiritual transcendente de Dios.

El dogma cristiano está dedicado a un proceso universal: la extracción del hombre de una unidad omnicomprensiva. El desprecio al animal estaba basado en la convicción creciente de la superioridad del hombre, cuyos primeros signos aparecen con la antropomorfización del universo.

Las formas híbridas: la prehistoria y las civilizaciones arcaicas

El primitivo anhelo, indeterminado y omnipresente, de contacto con los poderes invisibles, halló eco en las nuevas condiciones de las civilizaciones arcaicas, donde su manifestación más directa son las formas híbridas, continuamente cambiantes, con cuerpos humanos y cabezas de animales.

La razón por la cual en los tiempos primitivos las criaturas híbridas tenían cuerpo humano y cabeza de animal puede comprenderse fácilmente. El hombre compite así con la superioridad del animal: su fuerza y su impenetrable misterio. Estas criaturas híbridas se remontan, en el período auriñaciense, hasta el ídolo femenino con cabeza de pájaro dibujado en la arcilla de la caverna de Pech-Merle.

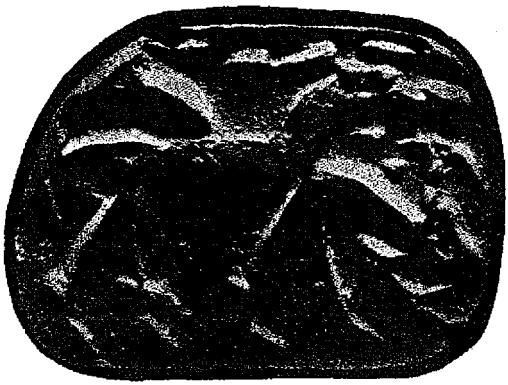
La superior fuerza del animal permitiría un mejor contacto con los poderes invisibles. El empeño de hacer profundas distinciones entre el hombre y el animal en estos impenetrables anhelos religiosos no nos llevaría a ninguna parte. La intangibilidad era la esencia del híbrido prehistórico.

Mediante la combinación de las características especiales de varios animales, podía alcanzarse un poder aún mayor. Esto es lo que se creyó desde el principio, cuando el hombre, utilizando diferentes arcillas coloreadas, intentó pintar perfiles de extraños monstruos en las paredes de roca blanda. No hay más que recordar la gran serpiente de tres metros de largo, con cabeza de animal de presa y colmillos gigantescos, pintada en la caverna de La Baume-Latrone, en el sur de Francia.

También data de los tiempos auriñacienses una criatura demoníaca, una gran cabeza de animal de La Ferrassie (Dordoña), compuesta de tantos rasgos que no puede atribuirse a ninguna especie animal existente.

Más fantásticas aún son las mezclas de partes de varios cuerpos y cabezas de animales en un ser compuesto, como la que se halla en el santuario, casi inaccesible, de la caverna de Pech-Merle. Aquí se mezclan un rinoceronte, una leona y tres gacelas, cuyos cuerpos no pueden distinguirse unos de otros.

Las representaciones de cuerpos compuestos continuaron a lo largo de miles de años. Un sello del tercer milenio, del período de Uruk-Jemdet Nasr, muestra tres cabras salvajes que comparten un mismo cuerpo: una baja la cabeza y otra mira hacia atrás.



17. Figura compuesta: Tres cabras salvajes compartiendo un mismo cuerpo. Impresión de un sello de esteatita. Comienzos del tercer milenio.

Los híbridos en Sumer

En el período en que fue creado el panteón antropomórfico aparecen en Sumer los híbridos de hombre y animal. Dichos híbridos desempeñaron allí un papel mayor, en la primera fase, que en Egipto, lo cual se debió tanto al comienzo más temprano de la civilización sumeria como a la mayor persistencia en Sumer que en el Egipto contemporáneo de la imaginería pictórica del mundo prehistórico.

Cuando se penetra, no sin dificultad, en el mundo remoto de la glíptica sumeria, se encuentra que en los sellos más primitivos son figuras de animales, siempre de animales, las que cubren la superficie de los sellos con un significado simbólico. Muy pocas figuras humanas aparecen, generalmente de significado indeterminado y dispuestas en relación con los animales. Al final del Tercer Período Dinástico Temprano se multiplican las escenas de luchas entre animal y animal y hombre y animal. En este período también aparecen, en los cilindros-sellos, dioses sentados reconocibles por sus tocados de dobles cuernos. Pero estos dioses tienen cabezas de animales grotescos o de pájaros, y no son menos fantásticos otros tipos de figuras cuyos enormes ojos huecos ocupan casi toda la cabeza. Se trata de híbridos tan indeterminados como los de la prehistoria. Y son intermediarios como las figurillas femeninas con cabeza de pájaro de Ur.

En las figuras híbridas de la prehistoria nos hallamos cerca de la esencia del anhelo religioso. En las civilizaciones arcaicas dichas figuras recorren el camino hacia los dioses antropomorfos. Son fenómenos de transición.

En contraste con la prehistoria, las civilizaciones arcaicas se limitaron a dos tipos de híbridos solamente: el animal compuesto y el animal-hombre.

En Sumer había algunos animales híbridos, como los leones con retorcidos cuellos de serpiente (cilindro-sello del Museo de Bagdad, 10759; Frankfort, 1954, lám. 8B), que también entraron en el Egipto predinástico bajo la influencia mesopotámica. Frecuentemente son considerados como adornos heráldicos. Otros híbridos no desempeñan ningún papel especial, excepto el águila Imdugud, con cabeza de leona, que aparece frecuentemente durante el período de formación de los dioses.

Entre los animales-hombre había hombres-pez y hombres-escorpión que guardaban la puerta del mundo de los muertos en el poema épico de Gilgamés. En una lira de la I Dinastía de Ur se muestra un hombre-escorpión con cuerpo humano y caparazón de escorpión. Es menos espantoso que otras muchas figuras de las tumbas reales de Ur.

Imdugud, el águila con cabeza de leona

Imdugud, el águila con cabeza de leona, debe de haber ejercido una atracción especial sobre los sumerios. Es un híbrido típico surgido del deseo de acumulación de poder. Imdugud «simboliza un rápido y potente ataque al incorporar en un mismo personaje tanto al rey de las aves, el águila, como al rey de las fieras, el león» (Dhorme, 1949, pág. 103).

Pero este es solamente uno de sus significados. Imdugud es predominante-

18. Hombre-escorpión con cuerpo humano: detalle de una lira. I Dinastía de Ur.

mente un ave mítica, un ser donde se mezclan lo cósmico y lo terrestre o ctónico, «que decreta los destinos y pronuncia la palabra»: así traduce Kramer la narración sumeria en una estela (1956, pág. 235) en la cual el héroe de la saga, Lugalbanda, en el extremo del mundo, ha perdido el camino de vuelta a su ciudad de Uruk e intenta encontrarlo de nuevo por medio de un truco. «Está decidido a conseguir primero la amistad del pájaro Imdugud que decreta los destinos y pronuncia la palabra que nadie puede transgredir» *(ibíd.)*. Lugalbanda consigue la amistad de Imdugud alimentando a los polluelos en el nido en ausencia de ésta. Ante eso, el ave le muestra el camino de vuelta desde la «lejanísima tierra de Zabu», el cual es «un viaje del que nadie regresa» *(ibíd.)*. Imdugud es el pájaro que todo lo sabe y que determina el destino.

Imdugud se presenta siempre en los sellos y relieves como hembra, con cabeza de leona sin melena, pero nunca en función maternal. En un sello del Tercer Período Dinástico Temprano, una pareja de toros se inclina ante el pájaro que revolotea, adorándolo (British Museum 116724; Wiseman, 1959, pág. 22).

En contraste con las representaciones simbólicas de Imdugud en relieves y sellos, las narraciones épicas ponen de manifiesto su aspecto maternal. En el poema épico de Gilgamés el ave anida, con sus crías, en la copa del árbol de la diosa Inanna (pág. 223).

Normalmente Imdugud se cierne con las alas extendidas sobre animales sumerios organizados heráldicamente: leones o ciervos, animales salvajes como ella misma. A veces aparece atacándolos con las garras y el pico.

Al principio esta águila con cabeza de leona era representada generalmente de perfil, con las alas plegadas, como señala E.D. Van Buren (1935, pág. 239) en una serie de ilustraciones. Imdugud aparece al comienzo del período de Jemdet Nasr: «Una de las primeras representaciones... aparece en un cilindro-sello que se remonta por lo menos a Uruk III, a comienzos del período de Jemdet Nasr» (pág. 238). Hay una representación a gran escala de Imdugud con dos ciervos en un re-

19. Imdugud, el ave con cabeza de leona, con dos ciervos: altorrelieve en cobre (1 metro aproximadamente). Procedente del templo de Al'Ubaid, del período Dinástico Temprano.

lieve de cobre de un templo del Período Dinástico Temprano de Al'Ubaid, al cual volveremos para hablar de la proyección escultórica del relieve. Henri Frankfort no ve ninguna acción agresiva en esta escena: «El gesto no representa agresión sino afinidad: la misma deidad está simbolizada por el pájaro y los ciervos» (1954, pág. 30).

Todo esto se hace más comprensible en aquellas representaciones en las que Imdugud sujeta a dos leones con sus garras, como en un relieve de una plancha perforada de Dudu, sumo sacerdote del rey Entemena. El agujero de la plancha servía para sostener una maza ritual. El motivo principal muestra a Imdugud, junto al donante, con los dos leones, de los cuales casi podría decirse que contemplan amistosamente al pájaro.

En el jarrón de plata de Entenema de Lagash, que se encuentra en el Louvre, Imdugud aletea sobre un friso de leones, ciervos e íbices.

Ninguna representación transmite mejor la fuerza de esta atmósfera mitopoyética que la maza del rey Mesilim de Kish, de hacia 2600 a. C. El águila con cabeza de leona, cuyos ojos y lengua tienen incrustaciones de piedras preciosas, extiende sus pesadas alas desplegadas sobre la superficie superior de la maza ritual. Es el poderoso pájaro de la tormenta, mensajero del trueno y de la lluvia, portador de la fertilidad. La conjunción con la maza resalta el aspecto guerrero de Imdugud.

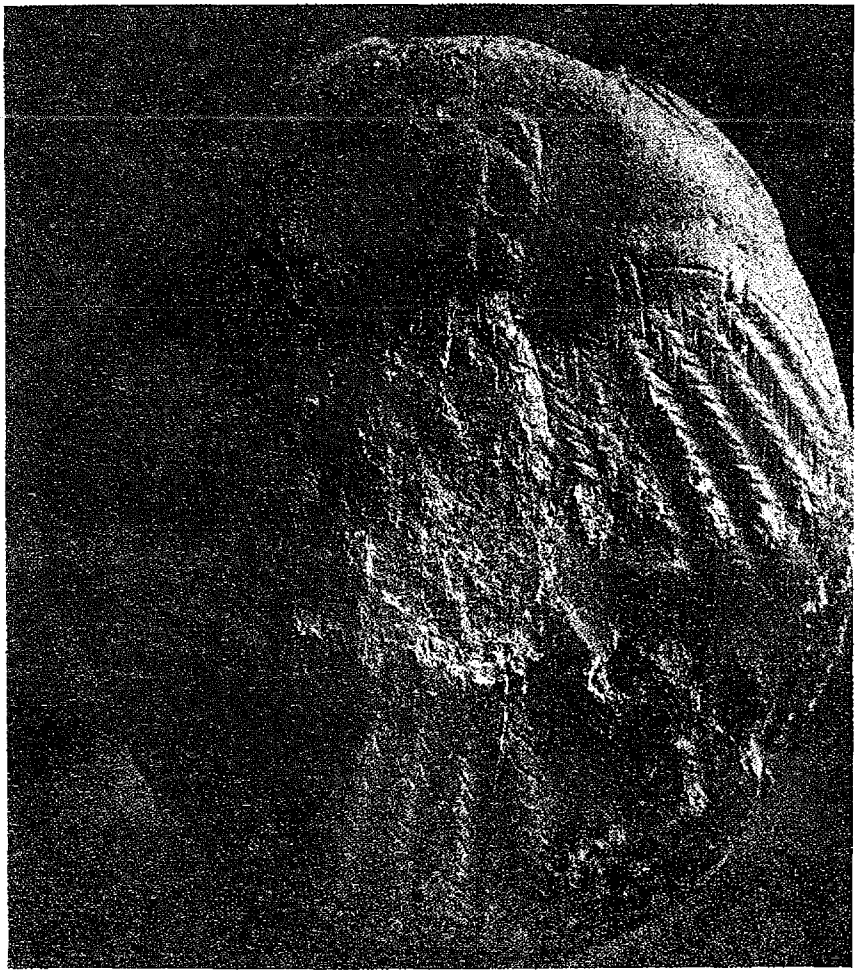
Alrededor de la cabeza de la maza hay un friso de leones cuyas melenas llevan una inscripción. Plásticamente, tanto Imdugud como el friso de leones están notablemente simplificados. Esta maza, que lleva el nombre del rey Mesilim de

20. Imdugud sujetando a dos leones con sus garras: Relieve en una losa cuadrada perforada, destinada a soportar la maza ritual. Lagash, período Dinástico Temprano.

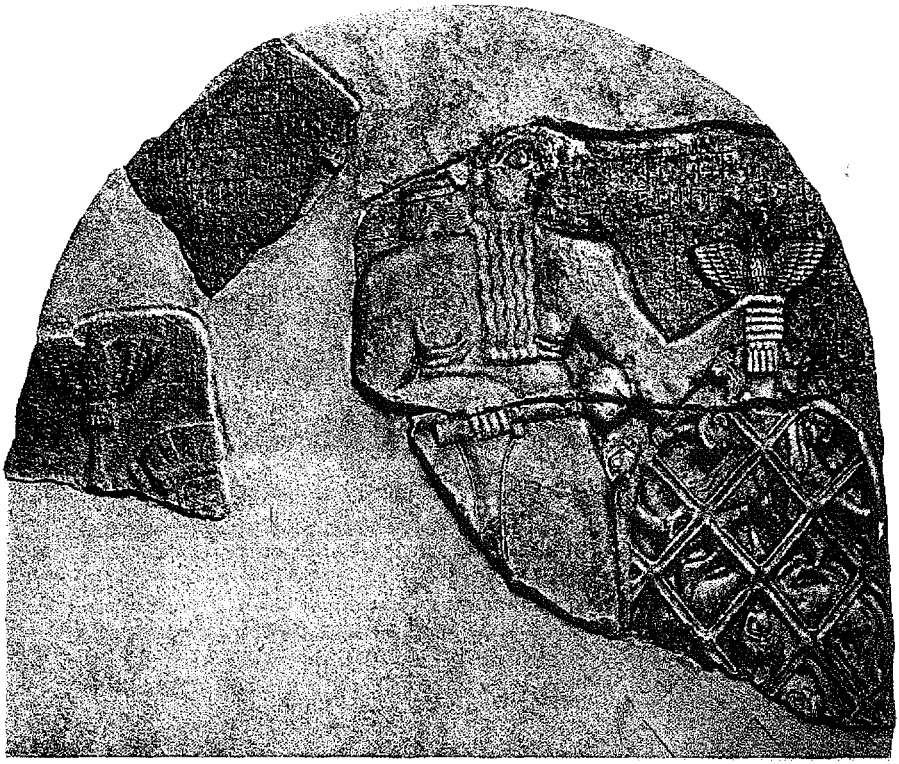
Kish, es la primera fuente escrita de la historia del país. Kish aparece descrita como la más antigua de las ciudades soberanas. Se hallaba a sólo unos cuantos kilómetros al este de Babilonia y a unos ochenta kilómetros de Bagdad, y pertenecía al período de Mesilim (del nombre del rey), que sucedió al período de Uruk III-Jemdet Nasr, cuando la escultura sumeria estaba en su primera floración. Esto es un signo de que la cultura altamente desarrollada del sur estaba penetrando de nuevo en el norte.

Imdugud representaba al poderoso pájaro del destino que gobernaba sólo y con independencia. No estaba sometido a ninguna ciudad ni a ningún dios y aparecía en muchos lugares (Van Buren, 1935, págs. 237-251), hasta que sufrió la suerte de otros muchos animales e híbridos y, en Lagash (Tello), vino a ser el em-

21. Indugud en la parte delantera de una maza votiva del rey Mesilim de Kish, cerca de Babilonia. El friso de leones circundante contiene la primera fuente escrita de la historia de este país; h. 2600 a. C.



22. Imdugud en la parte superior de la maza (ver fig. 21): La diosa de cabeza de leona con las alas desplegadas.



23. Estela de los Buitres, que conmemora la victoria del rey Eanatum de Lagash: Una diminuta Imdugud aparece en el puño gigantesco del dios Ningirsu. Hegemonía ya firmemente establecida de los dioses antropomorfos; hacia la segunda mitad del tercer milenio.

blema del antropomórfico Ningirsu, dios de la ciudad, hijo de Enlil, y él mismo dios de la tormenta y de la guerra.

fig 23 En la famosa Estela de los Buitres del Louvre, Imdugud, en la mano del gigantesco dios Ningirsu, sujeta la red en la cual han sido capturados los enemigos del rey Eannatum. Esta estela, de la segunda mitad del tercer milenio, es un documento histórico altamente significativo: muestra la subordinación del antiguo pájaro del destino y el ascenso del dios al poder dominante.

El fragmento de piedra caliza, de 1,8 metros de altura, está adornado a ambos lados con representaciones e inscripciones que narran la vida de Eannatum, descendiendo a los detalles de la campaña que llevó a cabo contra la ciudad de Umma. En la cara frontal, ocupando casi las dos terceras partes de la altura de la estela, se halla Ningirsu, vistiendo una falda muy tiesa y con una gran barba que le cubre el pecho desnudo. Es gigantesco en proporción a las figuras humanas. En una mano lleva una maza con la que golpea a un prisionero en la cabeza. En la otra mano, el pájaro de la tormenta, Imdugud, sujetando a dos diminutos leones entre sus garras, sirve como broche para cerrar la red. El ascenso final de los nuevos dioses antropomorfos no pudo tener representación más impresionante.

El hombre-toro

Ningún pájaro con cabeza de león puede hallarse en los tiempos primevos. Sí hay, en cambio, híbridos de animal y hombre, de los cuales el más importante es el hombre-toro. Durante el período anterior a aquel en que los dioses antropomorfos cobran importancia, se halla en sellos y relieves el toro con cabeza humana, recostado o apoyado en sus cuatro patas. El hombre-toro de Sumer, que aparece en el tercer milenio, está relacionado con los híbridos mucho más salvajes y fantásticos de los tiempos primitivos. Un hombre-toro en actitud de saltar, del período magdaleniense (caverna de Les Trois Frères, Ariège), muestra muy claramente las continuas alternancias entre hombre y animal. Una poderosa imaginación hace que el híbrido cambie continuamente su forma animal y humana de parte a parte y de miembro a miembro. Los cuernos cortos, los enormes ojos y la dilatada nariz se repiten en el hombre-toro sumerio; los rebaños y los animales domésticos caen bajo su protección y lo reverencian, como se demuestra en muchos cilindros-sellos.

Las relaciones principales entre híbridos y animales eran bastante diferentes. En la misma caverna de Les Trois Frères otro hombre-toro está tocando un instrumento musical y conduce ante él una serie de animales híbridos sorprendentes: renos con cabeza de bisonte, etcétera.

La comparación de este músico primitivo con una representación que hay en una paleta cosmética del último período predinástico egipcio es por demás ilustrativa. Esta paleta de Hieracómpolis muestra, como señala M.A. Murray, una vinculación conceptual entre los híbridos de los tiempos primevos y los de Egipto. En la paleta, actualmente en el Louvre, «está representado un hombre disfrazado de chacal. Sobre su cabeza y espalda lleva una cabeza y una piel de chacal, y la cola cuelga por detrás; las manos y los pies están desnudos y son claramente humanos. El hombre toca una flauta y, como sus prototipos paleolíticos, está bailando. Como el enmascarado de Ariège, está en medio de animales... Interpreta en un instrumento musical» (1934, pág. 251; fig. en Quibell y Green, 1902, lámina XXVIII).

El vínculo conceptual se advierte especialmente en el pie humano: es un ser humano con cabeza de animal.

Muy por encima de la profusión de animales de la caverna de Les Trois Frères se halla la más famosa de todas las representaciones de híbridos: el «hechicero» con cuernos de reno, barba humana y ojos enormes. En su forma de chamán atrae hacia él la presa cazada mágicamente.

El hombre-toro sumerio, especialmente en el período de domesticación del animal, aparece por lo general como un espíritu protector contra los ataques de los animales salvajes, como un defensor combativo.

La representación plásticamente más interesante del hombre-toro, con cuerpo de toro y rostro humano, es un relieve sobre una plancha más o menos cuadrada de piedra caliza de Al'Ubaid, de la época de la I Dinastía de Ur. Dicho relieve muestra un toro salvaje, como escapado de la época prehistórica, trepando por una montaña. El pájaro Imdugud, con las alas plegadas, se halla encaramado en el lomo del toro y, simbolizando las fuerzas en lucha de la conservación y la des-

24. Hombre-toro prehistórico: Una de las criaturas híbridas prehistóricas. Caverna de Les Trois Frères (Ariège), período magdaleniense. Tomado de Bégouën y Breuil.

trucción, «desgarra los cuartos traseros del animal con sus agudos dientes» (Van Buren, 1935, pág. 237).

Un cilindro-sello del Tercer período Dinástico Temprano nos introduce en la atmósfera de una religión en la cual el hombre-toro desempeñó un papel principal. En el registro superior está inscrito: «En cada lado de una montaña coronada por una planta de tres ramas se halla un toro con cabeza humana, con una de sus patas delanteras levantada para apoyar su pezuña en la montaña» (pág. 245). La planta significa «tal vez el 'árbol sagrado' o el 'árbol de la vida'» (Wiseman, 1959, pág. 21). El pájaro Imdugud aparece de nuevo sobre el lomo de cada uno de los toros, desgarrando sus carnes. A ambos lados dos figuras permanecen dispuestas, puñal en mano, a hundirlo en las águilas con cabeza de leona. La escena no representa una batalla, sino que tiene un significado simbólico indefinido. El hombre-toro es el guardián del árbol sagrado, el protector de la vida. De los dos «héroes», cuyas cabezas se componen principalmente de un solo y enorme ojo, poco puede decirse excepto que representan «figuras mitológicas» *(ibíd.)*. En el registro inferior la atmósfera religiosa se hace más intensa. Dos toros inclinan reverentemente sus cabezas ante un águila con las alas extendidas.

La trágica actitud del hombre sumerio hacia la vida se expresa en el interminable combate entre hombre y hombre, animal y animal y hombre y animal: un tema siempre recurrente en los primeros sellos y relieves.

En los tiempos prehistóricos existían representaciones de animales de presa que habían luchado hasta la muerte, como una criatura con un gran chorro de

25. Hombre-toro barbado trepando por una montaña: Imdugud, con las alas plegadas, está encaramada sobre el lomo. El hombre-toro prehistórico ha cambiado de rasgos y se ha vuelto casi doméstico. Relieve sobre una losa de piedra caliza de Al'Ubaid. I Dinastía de Ur, hacia 2500 a.C.

sangre fluyéndole de la boca, en la caverna de Pech-Merle. No sabemos nada de la lucha que condujo a este final. Probablemente no la hubo. Lo figurado en este lugar recóndito de la roca era un símbolo activo, la representación de un deseo que exigía ser satisfecho.

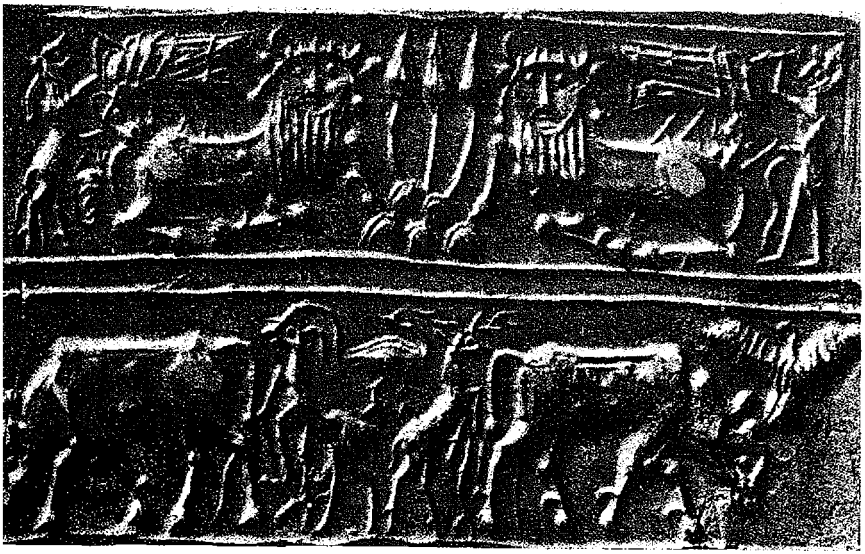
A través de toda la historia de Mesopotamia aparecen constantemente escenas de lucha, en total contraste con Egipto, donde tales escenas apenas si perduraron más allá del período de temprana influencia sumeria. En el último tercio del pe-

ríodo Dinástico Temprano aumenta el número de escenas de lucha entre animal y animal y hombre y animal. Las antiguas y pacíficas secuencias de animales acusadamente abstractos, de íbices corriendo, o de cabras entremezcladas con peces y ranas, o de animales yuxtapuestos en posición invertida como en las épocas prehistóricas, desaparecieron ante la afluencia de escenas de lucha.

Este es el período en el cual el hombre-toro abandona su postura de animal, permaneciendo ahora en posición vertical. Y no sólo eso: aunque conserva dos patas de animal, la parte superior del cuerpo ha adquirido esbeltez humana. Todavía tiene cuernos y orejas de bovino, tal y como siempre los tuvo Hator, la vaca-diosa egipcia. Su rostro humano se va acentuando más, encuadrado por una barba ceremonial, puntiaguda o cuadrada. El hombre-toro es una de las figuras más representadas durante el tercer milenio, el período de transición de los híbridos a los dioses antropomorfos.

En un sello de Tell Agrab del Segundo período Dinástico Temprano, dos hombres-toros, con cuartos traseros de toro y parte superior de hombre, están a punto de caer sobre un león que ha atacado a una vaca.

A menudo el hombre-toro acompaña a una figura humana cuyo significado no está determinado exactamente. Con frecuencia puede ser identificada con el dios sumerio de la vegetación, Tammuz, que también significaba una combinación de poderes procreadores y protectores. En un sello del Tercer período Dinástico Temprano (British Museum), el hombre-toro aparece con un «héroe» barbudo que no lleva más que un cinturón de tres trenzas y un extraño tocado. Este personaje puramente humano parece sujetar, más por la magia que por la fuerza, a dos toros erguidos, en tanto que el hombre-toro aparta a dos leones rampantes, simplemente clavándoles los brazos en el pecho. Se trata de una escena mágica de



26. Hombres-toros recostados a cada lado de una montaña, con Imdugud en sus lomos. Tres ramas brotan de la cima de la montaña (¿el árbol de la vida?). Grabado de un cilindro-sello del Tercer período Dinástico Temprano.

27. Hombres-toros con brazos humanos acometiendo a un león que ataca a una vaca. Impresión de un cilindro-sello. Tell Agrab, Segundo período Dinástico Temprano.

28. Hombre-toro y figura humana sujetando a unos leones rampantes mediante la fuerza mágica. La figura central es probablemente Tammuz, el dios de la vegetación. Impresión de un cilindro-sello del Tercer período Dinástico Temprano.

fuerzas destructoras reprimidas. Frankfort declara, en relación con una escena similar, que «la lucha entre el león y el toro reproduce un conflicto entre fuerzas divinas, y cabe suponer que el león representa el aspecto destructivo de la Gran Madre, aspecto que era conocido pero que se creía generalmente reprimido» (1954, pág. 12).

En la época protoliteraria, en la cual no se han encontrado aún representaciones del hombre-toro, la figura del «héroe» barbudo aparece con plena plasticidad en el abrazo amistoso de animales, en vasijas del período de Jemdet Nasr (vg., *ibíd.*). Puesto que el «héroe» ha sido identificado por lo general con Tammuz, el

fig. 28 pastor divino, el tocado que lleva en el sello puede representar plantas simbólicas del dios de la vegetación.

El hombre-toro a finales del período asirio

El hombre-toro se repite entre los colosos del imperio asirio, pero de forma radicalmente distinta. Se halla delante de los gigantescos palacios de los reyes como guardián y como protector contra el mal. Frente a la residencia del rey y en el salón del trono de Jorsabad, construido por Sargón II (722-705 a. C.), andando y sin embargo estáticamente detenido a pesar de sus grandes alas, vuelve a ser un toro sobre sus cuatro patas, pero sobre el cuerpo de toro hay una cabeza
fig. 29 con suaves rasgos cortesanos, que aislamos en nuestra ilustración para llamar la atención hacia la barba y el cabello cuidadosamente arreglados, que componen un conjunto muy delicado. Dos cuernos ornamentales, distintivo de la divinidad, se curvan suavemente alrededor del tocado en forma de fez.

Esta figura ha surgido de dos prototipos diferentes: el hombre-toro y el león, que, en los primeros períodos, desempeñaron el papel de guardianes del templo.
fig. 125 En el templo de Al'Uqair hay leones pintados a la derecha y a la izquierda del altar, y en la pequeña ciudad templo de Tell Harmal (hacia 2000 a. C.), cerca de
fig. 2 Bagdad, estaban agazapados ante la entrada con abiertas fauces rugientes.

Entre los mejores toros con cabeza humana que se han conservado del final del período asirio, hay dos de granito rosado que guardan una puerta en la muralla interior de la ciudad de Nínive. Dichos toros salieron a la luz en 1941 como consecuencia de un terremoto y ahora permanecen en el mismo lugar protegidos por un techo de madera.

El hombre-toro, que en un principio fuera expresión de una profunda fe fatalista, se ha convertido en reliquia decorativa. Sin embargo, estos colosos todavía aluden a su primitivo significado en Mesopotamia. Pero en lugar de ser el guardián del ganado y luchar contra las fuerzas salvajes de la naturaleza, el hombre-toro ha pasado a ser un gigantesco amuleto para ahuyentar a los malos espíritus que acosan al soberano dentro y fuera de las puertas de su palacio.

El sometimiento del animal

Los relieves y los cilindros-sellos nos informan del lento proceso de sometimiento del animal a través del tercer milenio. Al principio los animales aparecen solos en su majestad. Luego, en el período Dinástico Temprano, aparece el hombre, en forma de hombre-toro o de héroe, sojuzgando a los leones rampantes y a
fig. 28 los toros.

En el período siguiente la actitud hacia el animal, simultáneamente a la aparición del primer conquistador del mundo, Sargón de Acad, se hace completamente diferente. Es la época en que el propio rey se diviniza: ya no es el sacerdote-rey sino el dios-rey. En la estela de Naram-Sin, uno de los sucesores de Sargón, el rey ha asumido el distintivo divino: una corona con cuernos.

29. Toro con cabeza humana: Cabeza colosal de granito, de un toro alado, procedente de Jorsabad. Final del período asirio.

El sometimiento del animal se revela aún mejor en otro sello en el cual la
fig. 30 pierna derecha, desnuda, de la diosa Ishtar surge de debajo de su largo manto de lana para pisar firmemente el lomo de un león sentado. En una mano la diosa blande una espada dentada y en la otra «una correa (doble en la parte superior) sujeta a la boca del león. Yo creo que el arma encaja claramente con el carácter de la diosa, mientras que lo demás también connota su poder, capaz de someter a un ser como el león, que era, desde luego, su animal particular» (carta al autor de H.J. Kantor, de 11 de marzo de 1962).

Los híbridos en Egipto

Los híbridos asumieron una gran importancia en Egipto debido a la persistencia del culto de los animales. Se hallaban mezclados inextricablemente con las grandes deidades egipcias, cuya forma revela de inmediato su continuo parentesco con el mundo animal. Muchas de las deidades eran representadas habitualmente como híbridos, y otras como animales. Las formas animales se remontan a los tiempos primevos, mientras que las formas híbridas se dan principalmente durante la transición del animal divino al dios antropomorfo. En muchos casos la secuencia efectiva de transformación del animal en híbrido puede seguirse a partir de las representaciones existentes.

De las tinieblas sale Suchos, un influyente dios con cabeza de cocodrilo cuya

30. La diosa Ishtar y el león: La diosa somete al león colocando su pie desnudo sobre el lomo del animal y sujetando una correa atada a la boca.

«noble forma de cocodrilo procede del Nun [el océano primigenio]» (Bonnet, 1952, pág. 757). Anubis, el dios con cabeza de chacal de los muertos, era el embalsamador que daría nueva vida al cuerpo momificado. Su genealogía es incierta: «Los textos del período alto nunca mencionan a su padre ni a su madre y no hacen referencia a ningún lugar de origen» (Garnot, 1948, pág. 48). También aparece solo, como Suchos, el dios de la fertilidad, Min, y Hator, que nunca pierde sus orejas de vaca y cuyo origen se pierde en las profundidades de la prehistoria.

Horus, el protector del rey, era un halcón antes de adoptar la forma híbrida. Set, con su grotesca cabeza, descendía de un animal de raza indeterminada; se han propuesto muchas interpretaciones, pero sin éxito. Horus, el dios solar, y Set, el dios del desierto, fueron incorporados a la familia de Ra por los teólogos heliopolitanos. Pero antes habían sido completamente autónomos.

Entre las diosas-madres supuestamente existentes antes que ninguna forma de vida estaba Mut, diosa de la fertilidad, a la que a veces se representa incluso como un ser andrógino itifálico (Lanzone, 1883, III, pág. 335; lám. CXXXVI), pero que normalmente tiene forma de mujer sentada con cabeza de leona. Mut está a menudo entremezclada con Sekhmet, diosa de la guerra, que también tiene cabeza de leona. Ambas con el tiempo llegan a relacionarse con los más altos dioses: Mut como consorte de Amón-Ra, y Sekhmet como consorte de Ptah, dios supremo de Menfis. Aquí mostramos una de las centenares de estatuas de Mut o Sekhmet, que todavía permanece en el templo de la fertilidad de Mut en Karnak.

De todos estos seres compuestos, la Esfinge de Gizeh es tal vez el más misterioso, puesto que en él convergen el dios, el dios-rey, el animal y el culto del sol.

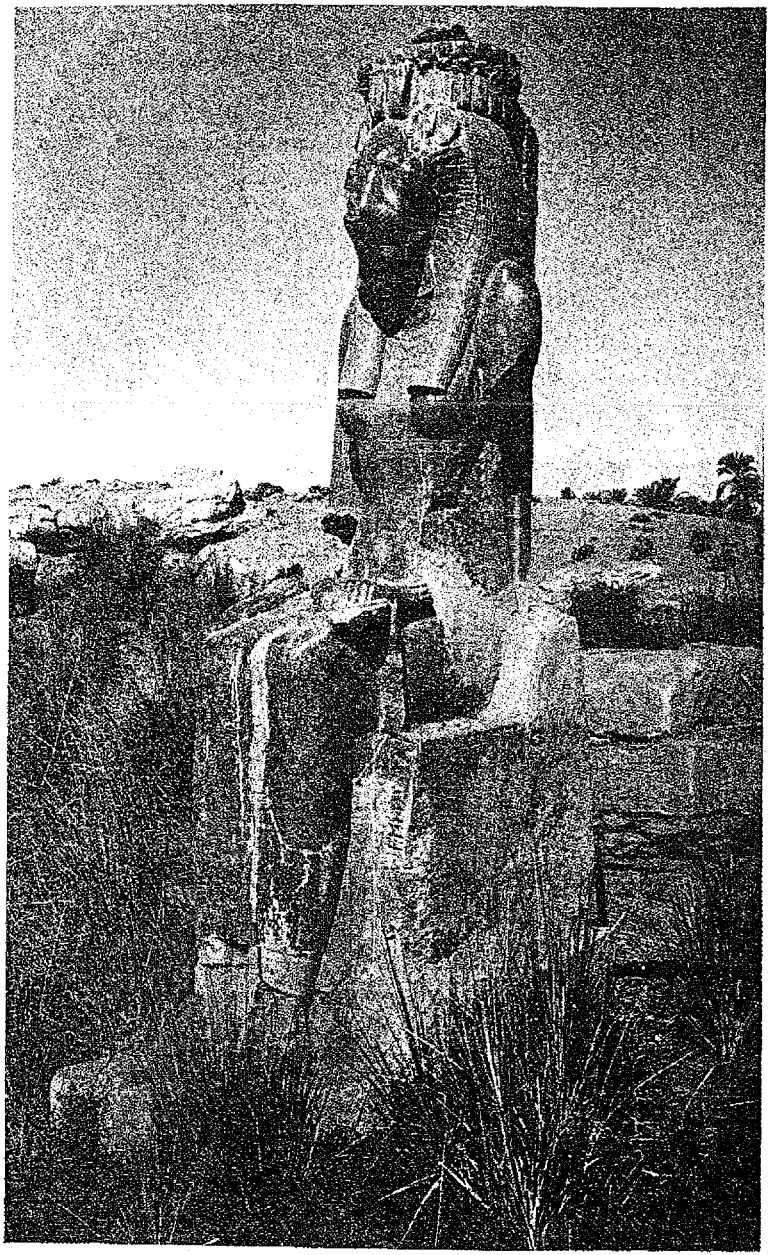
La Esfinge

La Esfinge, el león con cabeza humana, fue tallada en la roca viva: un enorme bloque que quedaba dentro de la cantera excavada para construir la pirámide. Es una montaña esculpida. Pero aun así, no es realmente una estatua exenta, puesto que está rodeada por tres lados por las paredes rocosas de la cantera. Es curioso observar que esta estatua, la más colosal de Egipto, está de hecho tallada en la roca como un relieve rehundido. Su lomo horizontal está a la misma altura del desierto circundante; solamente la cabeza sobresale por encima del horizonte, dando al conjunto su conocido aspecto. Como quiera que el cuerpo yace dentro de una gran hondonada de paredes rocosas en forma de U, repetidamente se ha visto cubierto por la arena. Incluso en el siglo pasado tuvo que ser despejado tres veces.

La Esfinge mira hacia el este. Para nosotros esto es un simple punto cardinal, pero en la edad de las pirámides significaba el renacimiento del sol y la reaparición de los dioses. El oeste era la dirección de la muerte —el reino de los muertos— pero el este significaba la continuación de la vida.

¿Cuál era el significado de la Esfinge?

En un principio representaba al rey Kefrén con su tocado real y su barba ceremonial, lo cual fue comprobado por Mariette, que excavó el cuerpo de la Esfinge y descubrió el templo subterráneo de Kefrén protegido entre sus dos grandes zarpas.

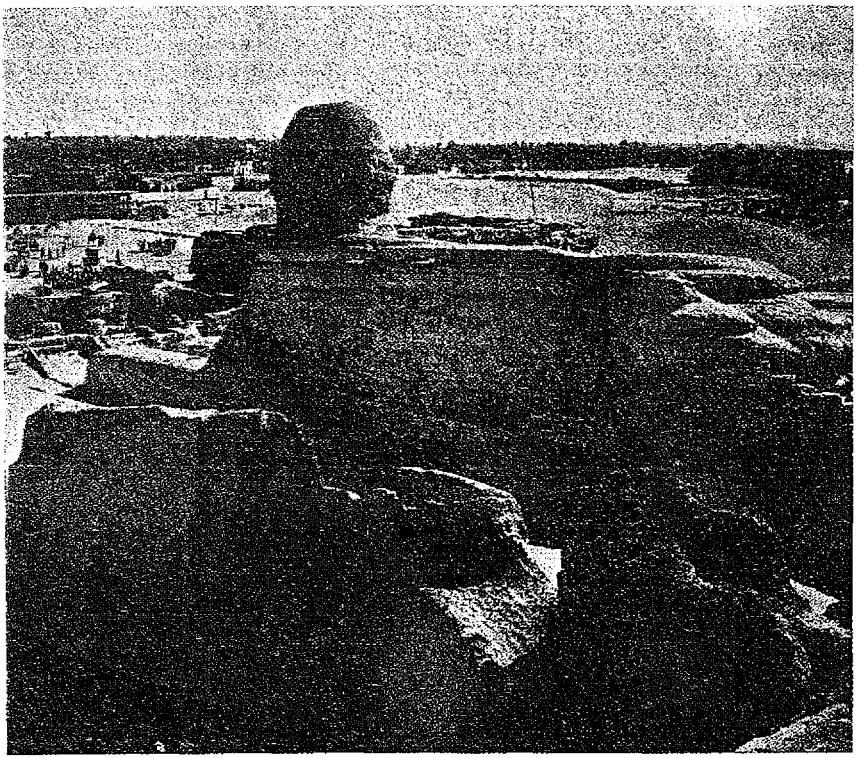


31. Sekhmet con cabeza de leona: Una de las muchas estatuas de esta diosa egipcia, del templo de Mut en Karnak. XVIII Dinastía.

Incluso en los tiempos predinásticos había existido un tipo de ser en forma de esfinge, con «cuerpo de león y cabeza de halcón o de águila... provisto de alas» (Hassan, 1953, pág. 145).

En la teología heliopolitana el rey se convierte en dios solar después de la muerte: «La Esfinge Gigante representaría por lo tanto a Kefrén como el Sol-dios haciendo de guardián de la necrópolis de Gizeh» (Edwards, 1961, pág. 108). La Esfinge registra el momento de más estrecha identidad entre dios y faraón: entre lo invisible y lo visible.

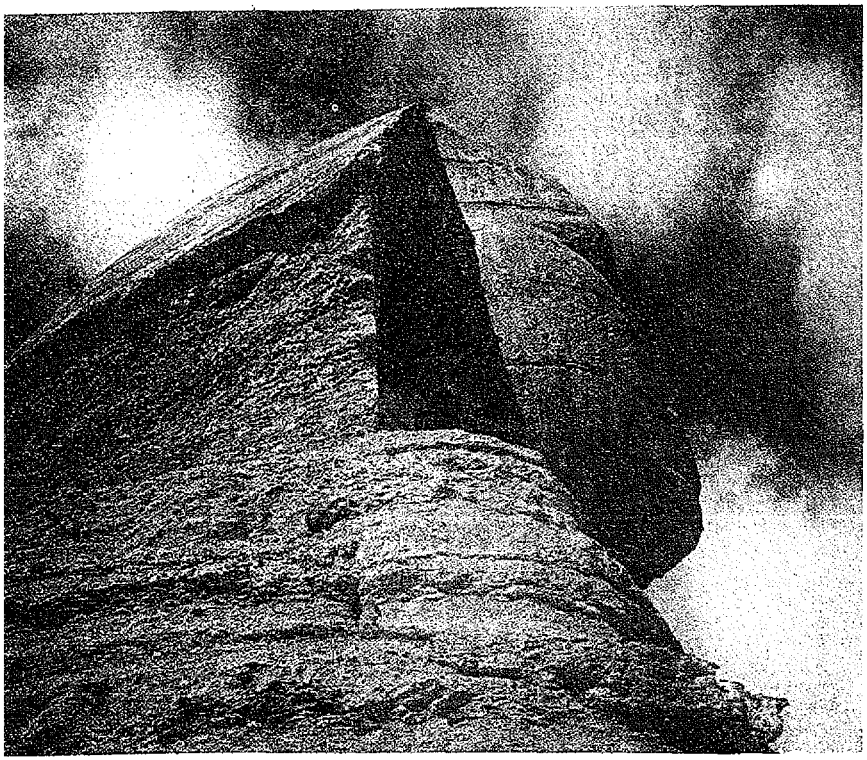
Después de la edad de las pirámides el significado original de la Esfinge de Gizeh parece haber sido olvidado. Se la incorporó al culto solar, identificándola con el dios Horus del horizonte. La esfinge representada en una estela de granito del



32. Cuerpo de la Esfinge desde el norte, surgiendo de los estratos de la roca natural. Gizeh, IV Dinastía.

rey Tutmosis IV pronuncia estas palabras: «Yo soy tu padre, Hor-em-akhet-Kheperi-Ra-Atón» (Hassan, 1953, pág. 222). Esto significa el sol en todas sus fases. Lo cierto es que no se puede hablar de un olvido real del significado original de la esfinge, porque su forma encerró siempre diversos significados.

La Esfinge de Gizeh es única por su tamaño y por su carácter impresionante. Las numerosas estatuas colosales de los reyes ramésidas del Imperio Nuevo, situadas delante de los pilonos de sus templos o —como en Abu Simbel— talladas directamente en la roca, nunca alcanzan la fuerza mística que todavía emana de la Esfinge a pesar de sus mutiladas facciones.



33. Cabeza de la Esfinge desde el sur, mostrando la estructura rocosa de la cara y de parte del cuerpo.

Constancia y cambio en los símbolos de fertilidad

La constancia y el cambio raramente se han visto tan imbricados como en la secuencia que va desde el símbolo de fertilidad hasta el animal venerado y luego hasta la diosa. Las diferentes fases están tan entremezcladas que apenas se pueden distinguir unas de otras.

Del ídolo de fertilidad a la diosa

En la prehistoria todos los seres humanos interpretaban papeles insignificantes en comparación con los animales principales, pero la hembra —generadora de la especie— era más importante que el macho. La mujer es portadora y moldeadora visible de la vida. Los deseos de fertilidad y procreación se concentran en la forma femenina, lo cual se halla expresado en las desnudas y preñadas figurillas de Venus desde comienzos del período auriñaciense, y acentuado por la exageración de las nalgas, los pechos y el triángulo sexual. Dichas figurillas no eran diosas sino símbolos mágicos potentes, capaces de crear nueva vida por medio del parto o de renovar la vida de los muertos, junto a los cuales fueron enterradas en tiempos más recientes.

Con el comienzo de la agricultura, en los milenios quinto y cuarto, apareció un tipo diferente de figurilla de Venus. Este tipo, hallado en muchos asentamientos mesopotámicos primitivos tales como Jarmo, Hassuna, Arpasiyya y Tepe Gaura, consiste en una figura sentada con las piernas extendidas horizontalmente, modelada en arcilla cruda. Algo más tarde se unió a estas figurillas un tipo más es-

34. Figurilla sedente de arcilla: Ídolo de la fertilidad, sin brazos y con nalgas protuberantes. Del V nivel de Hassuna (norte de Mesopotamia). Comienzos del cuarto milenio.

belto, de pie (Ur), muy parecido al del período magdaleniense, pero este tipo fue muy superado en número por las figurillas sentadas.

El tosco tratamiento escultórico de una figura del nivel V de Hassuna, al norte de Mesopotamia, da una idea viva de lo que sería la búsqueda vacilante de la expresión plástica.

Una figurilla de Deir el-Ballas, en el Alto Egipto, data de un temprano período para Egipto: el protohistórico (Nagada I, 34 dentro de la secuencia). Es, sin embargo, posterior a la figurilla de Hassuna. Su rostro, aunque indefinido, no está velado. Carece de brazos. Los pechos están plenamente formados y tiene los fuertes muslos extendidos hacia delante y cubiertos de esos agujeros en forma de taza que, a través de toda la prehistoria, sirvieron para reforzar el poder de los símbo-

35. Figurilla sedente de arcilla con fuertes muslos y pechos muy desarrollados. De la Tumba 394 de Deir el-Ballas (Alto Egipto). Período protohistórico, Nagada I.

los de fertilidad. Su postura ha sido comparada, no sin fundamento, con la de dar a luz. Estas figuras están todavía tan vinculadas a la tierra y a los conceptos ctónicos como las Venus auriñacienses. Si expresan una solicitud personal o si representan una forma más generalizada —la madre tierra o la Gran Madre— es cosa incierta.

La transición de amuleto de la fertilidad a la Gran Madre, y por consiguiente a diosa o diosas, se produjo con la creación de un panteón antropomórfico; más tarde, un dios masculino asumió la supremacía indiscutible en una sociedad de orientación masculina. El cambio desde ídolo de la fertilidad al concepto más generalizado de la tierra madre y luego a la diosa antropomorfa fue, como ha señalado Erich Neumann (1955, págs. 185-186), oscurecido por el ascendente dominio del macho y de los dioses masculinos. El principio patriarcal dio paso al sangriento período guerrero que precedió a la fundación de los primeros Estados. La creación de un mundo de dioses y la fundación de Estados coincidieron en el tiempo.

Cuando el dios Atón escupió o se masturbó para crear a Tefnut y a Shu, o cuando el rey Amón-Kamutef creó a su madre, el proceso natural pareció invertirse.

Todo esto condujo a la dispersión y al enmascaramiento de las primitivas creencias en la fertilidad, vinculadas al proceso femenino. Hermann Kees se sorprendía de la escasez de mitos relativos a una diosa que «no admitiera la necesidad de ayuda de un dios vecino, siendo capaz de crear vida con sus propias fuerzas» (1941, pág. 162). Sin embargo, la larga tradición prehistórica de supremacía del papel femenino continuó viva y no desapareció totalmente a lo largo de la historia de Egipto.

Cuando las interrogantes sobre el origen del universo empezaron a perturbar la mente humana, la diosa que había evolucionado a partir de los antiguos ídolos de la fertilidad adquirió un carácter autogenerador. Fue considerada como la hija y madre que creaba a su procreador, y generalmente se la imaginó, y efectivamente se la representó a veces como un ser andrógino, una réplica femenina de Amón-(o Min-) Kamutef.

Las leyendas hablan de la «fuerza primigenia masculino-femenina» de la diosa Neit, «la terrible diosa de las flechas de Sais» *(ibíd.)*. Sethe también recalca que Neit, «sin mengua de otros preceptos teológicos, actuaba como el más viejo de todos los dioses: 'la grande, la madre de los dioses', que ya había nacido cuando no existía nada más y que, por lo tanto, era considerada andrógina, como el Ptah de Menfis» (Sethe, 1930, pág. 68).

Incluso en Isis, incorporada por los sacerdotes a la familia de los dioses heliopolitanos y transformada en esposa amante y madre bondadosa, hay vestigios que apuntan a la autonomía original de esta diosa cargada de brujería y al misterio de su autoconcepción, sugiriendo así su bisexualidad inherente (Kees, 1956, pág. 139). La leyenda del asesinato de Osiris y el descubrimiento de las partes dispersas de su cuerpo por su esposa parece un mito griego. No es pues sorprendente que Plutarco, el autor de biografías comparadas del siglo I de la era cristiana, seleccionara dicha leyenda en su historia *De Iside et Osiride* y que el culto de Isis penetrara en el mundo helenístico y se extendiera lentamente por todo el Imperio Romano.

Hator

La sucesión directa —amuletos primitivos, madre tierra, diosa— no es el único camino. Hay otros: desde el animal hasta la deidad cósmica. Pero ya sean el amuleto o el animal el punto de partida, el significado es el mismo: el deseo de fertilidad.

La proyección cósmica surge de los «dioses locales fetichistas» (Sethe, 1930, pág. 6) que aparecen en los estandartes predinásticos de las diferentes regiones. En tiempos históricos, algunos se transformaron en vacas celestes cuyos cuerpos eran el universo y cuyas patas formaban cuatro pilares sobre los cuales descansaba el firmamento.

Los relatos más antiguos están contenidos en los Textos de las Pirámides, pero estos proceden de la V Dinastía, cuando la clase sacerdotal ya había alcanzado su predominio.

Entre las varias vacas celestes que perduraron estaba Hator, la madre nutricia universal, quien, aun cuando adoptó cuerpo humano, nunca perdió totalmente los signos de su forma animal. En principio fue probablemente una vaca salvaje, aunque esto sólo puede demostrarse para otras vacas-diosas (Bonnet, 1952, págs. 403-404). Aparece en los tiempos predinásticos, junto con un ternero, como distintivo de uno de los nomos. Hator tenía varias compañeras, entre ellas Nut, que también era representada como una vaca celeste.

El vínculo entre el animal hembra y la madre tierra puede observarse también en otra vaca celeste, Methyr, cuyo nombre significa «gran inundación». Methyr surge del océano primigenio y pare el sol, y «coloca a este hijo suyo entre sus cuernos» (Sethe, 1929, pág. 93). El vínculo que une a estas vacas celestes es el símbolo primevo de la fertilidad materna, que, aunque conservando todavía su forma animal, fue trasladado a la esfera cósmica.

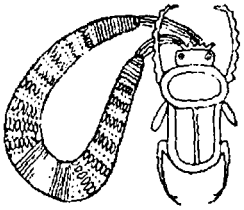
Ninguna de las demás diosas-madres de Egipto tuvo tan duradera influencia como Hator, cuya principal característica era la pluralidad de aspectos: ídolo de la fertilidad, diosa que se engendra a sí misma, vaca de las marismas del delta del Nilo y diosa antropomorfa muy unida al rey. Hator era al mismo tiempo guardiana del delta del Nilo, del lecho conyugal y de la necrópolis de Tebas: dadora de vida y protectora de los muertos. Hator legaba a la humanidad las alegrías de la vida y los poderes del amor: «Desde los tiempos antiguos Hator fue venerada como diosa de la alegría, mediante la danza, el canto y la música» (Hermann, 1959, pág. 23). Su instrumento musical era el sistro.

En la forma de Hator la belleza del cuerpo femenino halló por primera vez su plena expresión plástica. En su fase final llegó a ser la diosa del amor. Los himnos rituales compuestos en su honor, que se remontan al Imperio Medio, son, como establece Alfred Hermann (pág. 25), precursores de los poemas de amor individuales:

> *Digo que me complazco en su aspecto*
> *Mis brazos hacen (el gesto)*
> *Ven a mí, ven a mí.*

Los hilos entremezclados que componen el significado de Hator son difíciles

de desenredar. Incluso su collar, o *menit*, prolonga las tradiciones de un símbolo de la fertilidad. Tiene una especie de contrapeso cuya forma estilizada retrocede a un ídolo de la fertilidad en forma de torso femenino. En las tumbas de la XI Dinastía en Deir el-Medineh (Barguet, 1953, pág. 103) el contrapeso fue sustituido por el escarabajo Khepri, símbolo del sol naciente: crecimiento y transformación. Una inscripción señala que el difunto que toque el objeto sagrado recibirá larga vida y su juventud se renovará constantemente (pág. 109).



36. Collar de Hator cerrado por un escarabeo, símbolo de la renovación de la vida, que hace de contrapeso. De una tumba en Deir el-Medineh. Tomado de Barguet.

Lazos prehistóricos

Hator presenta más huellas de sus orígenes prehistóricos que cualquiera otra diosa. Su cabeza aparece cuatro veces en las esquinas superiores de la paleta predinástica de Narmer: una cabeza híbrida con facciones humanas y orejas y cuernos de vaca. Esta representación se mantuvo hasta la época romana.

Una tableta amratiense se remonta incluso más atrás que la paleta de Narmer. Según su descubridor, Flinders Petrie, representa la cabeza de una vaca con estrellas de cinco puntas en los extremos de las orejas y los cuernos, y hay otra estrella encima de la testuz. En *Los comienzos del arte* comparamos esta representación con las figuras humanas abstractas de finales del neolítico del este de España: no tienen cabeza y las manos y los pies terminan en forma de estrella.

¿Cómo podría interpretarse esta misteriosa paleta? ¿Como la cabeza abstracta de una vaca o como un torso femenino abstracto? Los torsos sin piernas eran corrientes tanto en Mesopotamia como en Egipto. Las mujeres con los brazos levantados en curva son un tipo común de figurilla amratiense. No hubo diosas en la prehistoria egipcia, pero puede ser que en ésta y otras representaciones en las que se combinan la vaca, el ídolo materno y la diosa tuviera su origen el proceso de transformación. A.J. Arkell compara la tableta amratiense con otras representaciones primitivas que contienen estrellas, y sugiere una relación cósmica: «Probablemente el parecido de la luna nueva con los cuernos de una vaca fue la razón de que la diosa-vaca fuera al principio relacionada con el cielo. Pronto se la imaginaría, por consiguiente, dando origen a la luna y a las estrellas al anochecer. De este modo parece haber surgido el concepto de Hat-hōr, 'casa de Horus', el sol-halcón» (1955, pág. 126).

37. Paleta de pizarra del período Predinástico representando la cabeza abstracta de una vaca con los cuernos, las orejas y la testuz rematados por estrellas. Probablemente representa al mismo tiempo el torso de una deidad precursora de la diosa Hator. Período amratiense. Tomado de Petrie et al.

38. Cabeza de Hator de la paleta de Narmer: Una de las cuatro cabezas de Hator de esta paleta, la cual llega a formar un torso simplificado como en la paleta amratiense.

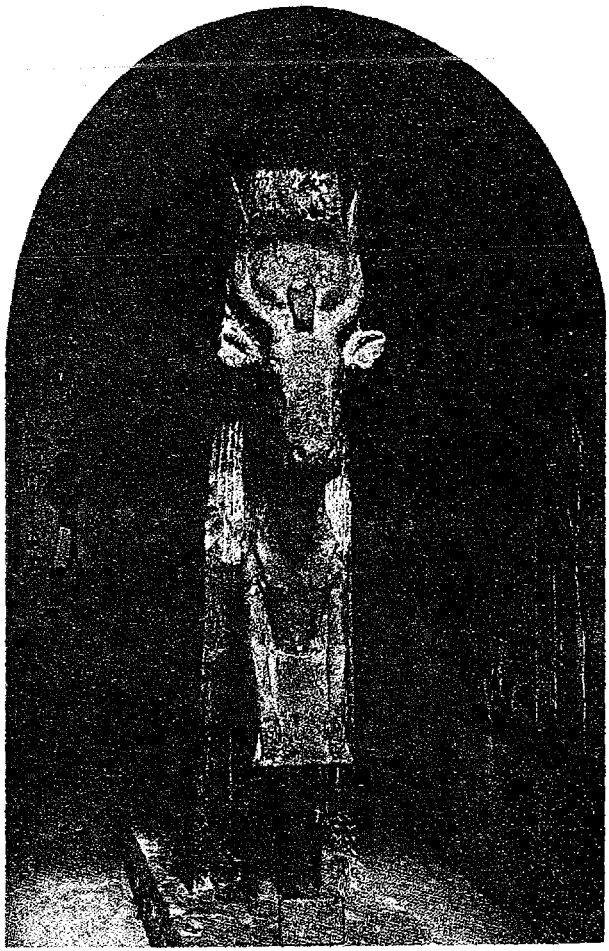
Hator y la realeza

Desde el principio, Hator estuvo estrechamente relacionada con el rey, como lo demuestra la tablilla de Narmer. En la edad de la pirámide, con el primer resplandor de las deidades antropomorfas, Hator aparece en una serie de tríadas antropomórficas como acompañante del rey Micerino, de la IV Dinastía, rozándole el dorso de las manos. En estas tríadas donde aparece con el rey y la diosa de una provincia, Hator todavía lleva los curvados cuernos de vaca, aunque su forma enteramente femenina transmite la impresión de una estrecha relación humana con el rey. Un fragmento de una de estas tríadas, que describiremos más adelante, expresa claramente cómo toda la belleza del cuerpo femenino tuvo aquí por primera vez expresión plástica.

La estrecha relación entre Hator y la realeza adquirió una fuerza ritual complementaria al comienzo del Imperio Nuevo, cuando la diosa fue convertida en guardiana de la necrópolis de Tebas, llegando así a ser más protectora que acompañante. En su forma original de vaca salvaje aparece bajo una bóveda de cañón

en el frente rocoso de Deir el-Bahari, cobijando bajo su cuerpo al faraón Amenofis II. En otros lugares el faraón aparecía arrodillado junto a la ubre de Hator para beber su sagrada leche: «Deseaba con ello demostrar que ella era su divina madre, y en la manera complaciente con que Hator le concede su leche se demuestra suficientemente que la diosa admitía la legitimidad de su derecho» (Maspero, 1912; trad. ing. 1913, pág. 112).

Más llena aún de dignidad es la escena del santuario de Hator en el templo funerario del Hatsepsut en Deir el-Bahari, donde la vaca sagrada se alza orgullosamente de perfil sobre su barca que emerge de las marismas del Nilo, con el disco solar entre los cuernos. Bajo su cabeza estaba la reina Hatsepsut, cuya figura fue borrada más tarde. Solamente el collar de Hator —el *menit*— permanece intacto,



39. Hator surgiendo de una bóveda de cañón: Relieve de la capilla de Hator de Amenofis II.

rodeando como en un abrazo tanto el cuello de la diosa como el de la reina. Este delicado gesto de envolvimiento fue utilizado después cuando una mujer deseaba demostrar a un hombre su afecto (Hermann, 1959, pág. 21).

El culto de Hator no decayó a través de la época tolemaica, ni siquiera después. Su imagen viajaba anualmente Nilo arriba desde su centro de culto hasta el templo de Denderah, cerca de Tebas, para celebrar sus bodas con su hijo Horus en el templo tolemaico de éste en Edfú.

En *Los comienzos del arte* seguimos las transformaciones de una deidad desde un ciervo montés hasta la Artemisa efesia, la diosa de múltiples senos. Aquí la transformación siempre se mantuvo dentro de la órbita de los ritos de fertilidad. Las transformaciones de Hator abarcan una gama mucho más amplia, aun cuando nunca renunciara a los atributos de sus fases anteriores, sino que fue incorporándolos siempre a su significado ampliado: desde amuleto de fertilidad hasta poema de amor. Como otros muchos dioses, Hator era un símbolo colectivo.

En la creencia popular Hator era el símbolo tangible de la fertilidad femenina. Más que cualquiera otra de las demás vacas divinas, mantuvo su aspecto de madre nutricia, y aparece en muchas formas diferentes como protectora de las mujeres. En una letanía del período último se contaban dieciocho formas de esta gran diosa (Bonnet, 1952, pág. 280).

Inanna

En Sumer había también varias clases de diosas de la fertilidad. Pero la situación era mucho más simple y estaba menos mezclada con elementos míticos. La deidad más destacada es Inanna. Antes de que Inanna asumiera la forma humana aparecía como un símbolo primitivo: un largo haz, a modo de cometa, de cañas atadas (como en un vaso de alabastro de Uruk) junto a una sacerdotisa y (en cilindros-sellos y relieves) sobresaliendo de las techumbres de los establos, en prueba de que era la protectora de los animales domésticos. Pero ya en las primeras tabletas de la época de la epopeya de Gilgamés, Inanna, protectora de las tierras de labor y de los animales domésticos, se había transformado en una Venus ávida de amor y poco después en una diosa de la guerra sedienta de sangre.

En contraste con las diosas egipcias de la fertilidad, Inanna pertenecía al más alto rango de la jerarquía sumeria. Ella, su padre el dios lunar, y su hermano gemelo el dios solar formaban la tríada suprema. Se la identificaba con la estrella más brillante del cielo vespertino, Venus. Más tarde este planeta, con ocho o doce radios encerrados en un círculo, llegaría a ser el símbolo de la diosa y «poco a poco la diosa de la guerra y del amor absorberá a los demás personajes femeninos de los panteones de Sumer, Acad y Asiria» (Dhorme, 1949, pág. 74).

Como en el caso de la diosa egipcia Hator, la creencia popular se aferró a su primitiva función de diosa de la fertilidad. Además, el pueblo veía en Inanna a «la madre misericordiosa que escucha las súplicas, que intercede ante los dioses irritados y consigue aplacarlos... Un profundo sentimiento de ternura anima los himnos y plegarias dirigidos a ella» *(ibid.)*. Tanto Hator como Inanna ejemplifican las transformaciones dinámicas de los dioses primitivos.

Min como ídolo y como dios

Las representaciones humanas de las primeras épocas de Egipto no siempre reproducen dioses antropomorfos. Uno de los pocos dioses egipcios que efectivamente fluye del embalse de la prehistoria es Min. Se puede seguir la evolución de este dios a través de toda la historia egipcia, desde sus insólitas estatuas de Coptos, del período predinástico, hasta el período tolemaico. Fue en el Imperio Nuevo, con su gusto por resucitar las costumbres primitivas, donde Min alcanzó su mayor renombre: fue absorbido por el dios solar Amón-Ra, a quien, a semejanza de aquél, se representó como itifálico.

Incluso en la fase final del período más brillante de Egipto, los bellos relieves del segundo patio del templo de Ramsés III (1195-1164 a. C.), en Medinet Habu, muestran la alta estima en que se tenía a Min y sus fiestas de la renovación y fomento de la fertilidad.

Min como ídolo

Las estatuas de Min en Coptos no son representaciones de un dios, sino ídolos de fertilidad. Cuando Petrie las encontró, sin vinculación con un estrato definido, su gran tamaño, inusual en la prehistoria, planteó un enigma. Son únicas, y podrían levantar sospechas si no fuera por los relieves laterales. Estos, como hemos visto antes, están tan próximos a las representaciones prehistóricas que pueden ser directamente comparados con los motivos y los métodos de representación del período magdaleniense. Demuestran que las cornamentas de los ciervos, uno de los símbolos más antiguos de la fertilidad, eran al mismo tiempo el símbolo más antiguo relacionado con el dios Min. También se distingue el asta en su jeroglífico, que ha sido interpretado como un fetiche parecido a un «cerrojo de madera» o como un rayo. La cornamenta es interpretada tradicionalmente como símbolo de fertilidad y de renovación de la vida. Que esto era así, aun en el cuarto milenio, puede verse en los íbices de las vasijas funerarias de Samarra y Susa, con los cuernos enormemente exagerados en comparación con el tamaño despreciable de los cuerpos.

La pluma, que aparece sobre el símbolo de Min en los relieves de éste, representó en los tiempos primevos (como han descubierto recientemente los prehistoriadores franceses) una forma abstracta del falo.

Muchas opiniones se han aventurado respecto al lugar de origen de este dios de la fertilidad y su emigración a Egipto. Se ha creído que procediera de Somalia (Punt), de Asiria y de Libia. Pero esto tiene menos importancia que su derivación general. Min está enraizado en las tradiciones de los tiempos primevos. Su cuerpo tiene forma de columna, el brazo derecho está pegado al cuerpo y la mano izquierda sostiene su miembro itifálico. El cuerpo está cubierto de grandes cúpulas (cavidades en forma de taza), que en los tiempos primevos estuvieron relacionadas con el deseo de fertilidad. Allí donde las piernas se cortan hay dos losanges con una línea transversal. Esta forma ha sido identificada por C. Hentze en los grabados sobre hueso magdalenienses, en los cilindros-sellos mesopotámicos, y también en China, como símbolo de la vulva.

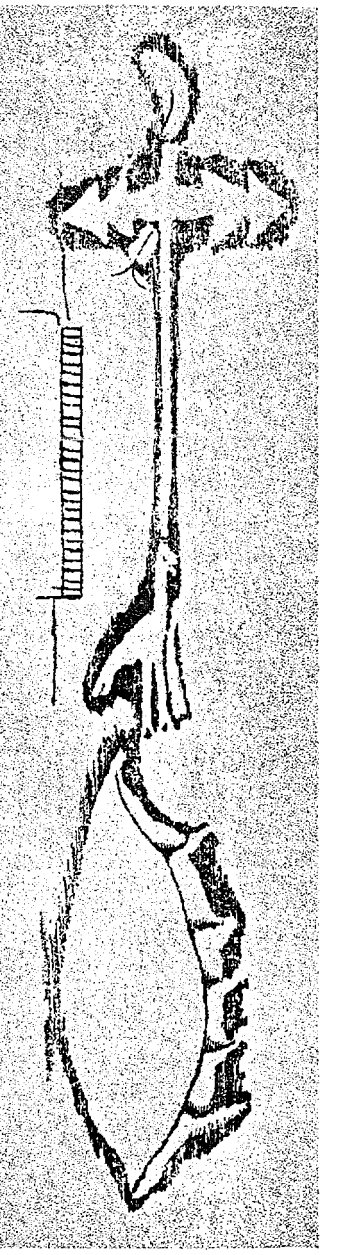
Además están los relieves del faldellín lateral de la figura, que repiten un motivo magdaleniense: una cabeza de animal con la lengua extendida hacia los símbolos vulvares (conchas). Pero estos relieves dicen algo más. Sus motivos no pertenecen, como la mayoría de los símbolos egipcios predinásticos, al mundo imaginativo de los agricultores. Se remontan al período de los cazadores, a los tiempos primevos.

Los ídolos de Min están cubiertos de diversos símbolos de la fertilidad y la procreación. La repetida yuxtaposición de símbolos masculinos y femeninos apunta a un ser andrógino. El nombre Min se convierte más tarde en Min-Kamutef, el «Toro de su madre», lo cual significa su procreador. «El significado de este engendramiento es la autocreación... Significa dios como el primer creador, cuando se creó a sí mismo y no había nadie antes que él» (Bonnet, 1952, página 364).

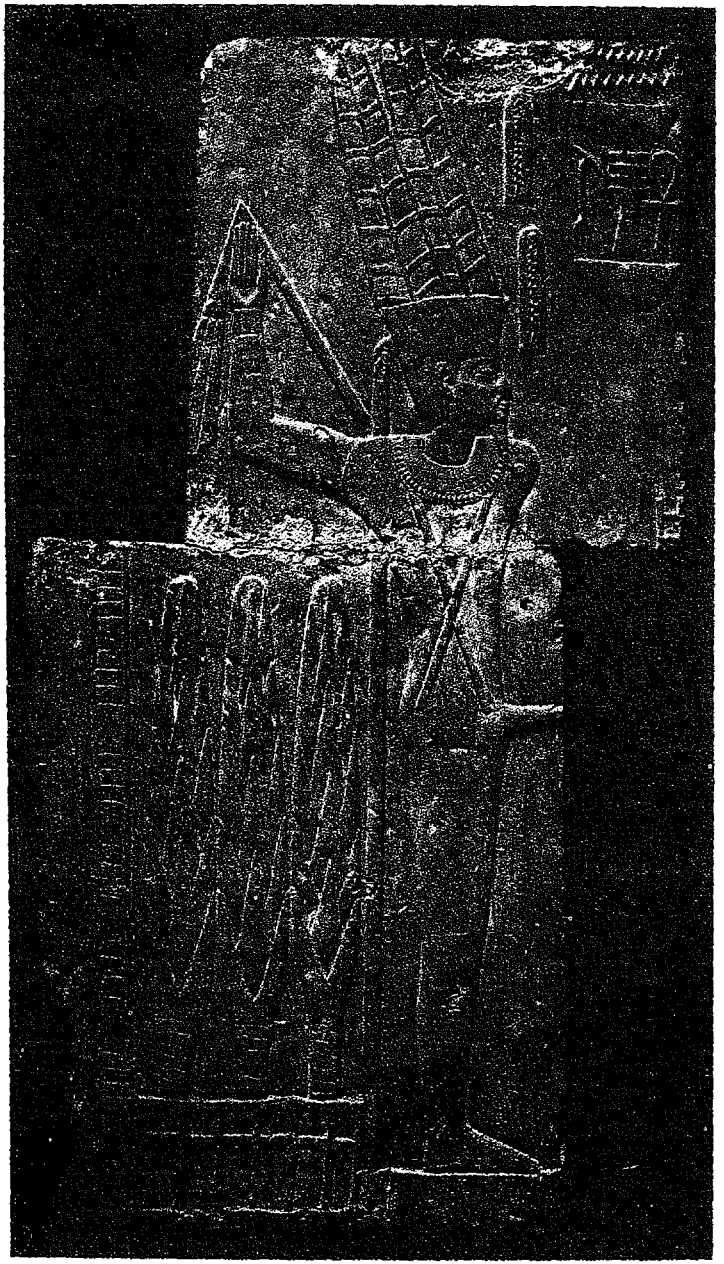
Los sacerdotes de Heliópolis, en una de sus descripciones del dios creador Atón, declaran que éste formó a Shu, dios del aire, y a su hermana y esposa Tefnut, diosa de la humedad, masturbándose (Textos de las Pirámides, § 1248; trad.

40. Cabeza de Min, dios de la fertilidad, perteneciente, según Flinders Petrie, al torso existente en el Museo de El Cairo. Coptos, período predinástico.

41. Estatua de Min: Grandes cúpulas en el cuerpo y símbolos vulvares junto a la base. Coptos.



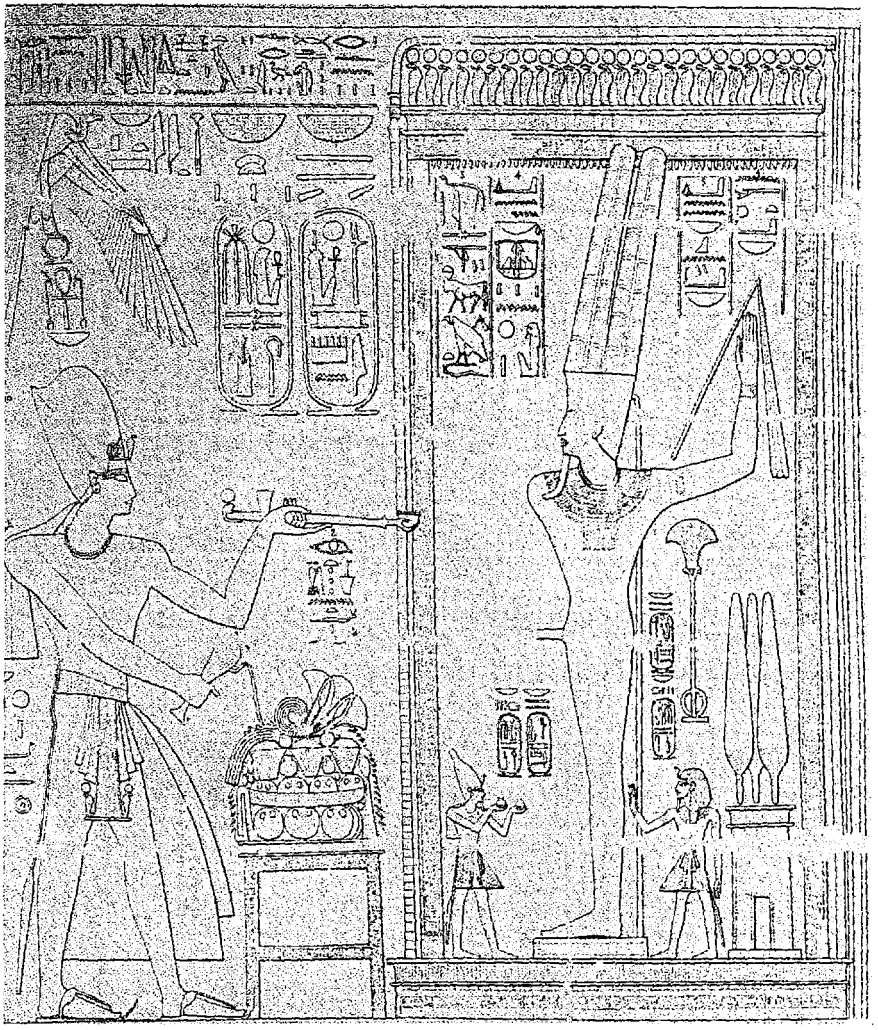
42. Símbolo de Min: Un dardo horizontal de doble punta cruzado en sentido vertical por una pluma abstracta, en relieve sobre el muslo derecho, debajo del brazo extendido del mismo lado. Tomado de Flinders Petrie.



43. Relieve de Min en actitud característica: itifálico, con un solo brazo levantado y una sola pierna. A su derecha, tres grandes lechugas, símbolos de fertilidad. De un bloque de piedra caliza procedente de un templo de la XVII Dinastía y utilizado de nuevo en el templo de Tutmosis III en Coptos.

ing. de Mercer, 1952, III, pág. 621). Si se compara este mito con la estatua arcaica de Min, se advierte el interés de los teólogos egipcios por incorporar las viejas tradiciones a su sistema.

Entre las estatuas de Min en Coptos, Petrie solamente halló una cabeza, actualmente en el Ashmolean Museum de Oxford. Dicha cabeza pertenece probablemente a la estatua de Min del Museo de El Cairo. Con su esbozo de barba, no está tan deteriorada como pudiera parecer. Como en todas las figuras prehistóricas, es probable que el rostro nunca tuviera rasgos definidos.



44. Min y Ramsés III. Medinet Habu, XX Dinastía. Tomado de Nelson.

Min como dios

En el caso de la Artemisa efesia la transición fue complicada, atravesando muchas etapas diferentes. Por lo que respecta a Min, la transición fue más simple. El ídolo primevo de la fertilidad fue incorporado al panteón egipcio, donde asumió la forma momificada de otras deidades, en particular Ptah y Osiris. Ambas tienen ciertas relaciones con Min, Ptah como dios de la creación y Osiris como dios de la vegetación. Por lo que respecta a Osiris esta forma es fácilmente comprensible como consecuencia del destino que sufría. Min, como todos los ídolos primevos, no tenía destino. Estaba solo.

Su forma deificada fue representada de acuerdo con normas hieráticas persistentes y permaneció invariable hasta el período tolemaico. Min, el ídolo antiguo de la procreación y de la fuerza procreadora que se difunde, se alzaba sobre un pedestal, aprisionado en una envoltura de momia. Esto ha sido interpretado algunas veces en el sentido de que Min, aun muerto, poseía sin embargo la facultad de crear vida (Bleeker, 1956, pág. 49). Pero el hecho de encerrar a este ídolo de Coptos en una envoltura de momia se interpreta hoy más como una típica inversión teológica.

En la forma deificada de Min solamente son visibles un pie y un brazo. El ídolo de Coptos tenía un brazo pegado al costado. El brazo aparece ahora levantado hasta más arriba de la cabeza. «En Egipto, el brazo levantado es un gesto típico de los dioses de la guerra» (pág. 46).

La falta aparente del otro brazo hace que la figura parezca mutilada. Pero se ha afirmado explícitamente: «Es seguro que Min sujetaba el falo con la mano izquierda» (pág. 48).

Min lleva sobre la cabeza el distintivo divino: dos plumas altas y rectas que refuerzan aún más su incorporación a la jerarquía de los dioses.

Como los relieves laterales de las estatuas de Coptos, una paleta del período gerzeense, la última fase predinástica, muestra el símbolo de Min en forma simplificada: un dardo horizontal de dos puntas cruzado verticalmente por una pluma abstracta (Massoulard, 1949, lám. LXV, 1). En las tumbas de Helwan aparece este símbolo de Min, tallado en marfil.

Min era un extranjero en la comunidad de los dioses de la luz, tales como Horus e Isis, con quienes estuvo esporádicamente relacionado. Min estuvo solo hasta que entró en contacto con el dios supremo, Amón, que aparece primero como dios local de Tebas en el Imperio Medio. Amón asimiló a Ra, el dios solar, y se convirtió en Amón-Ra. Finalmente asimiló a Min, el antiguo dios de la fertilidad de la vecina Coptos; e incluso en la XII Dinastía había asumido una forma itifálica, con lo cual toma exactamente el aspecto del dios Min «y es tratado exactamente como él... Detrás de él se hallan los mismos atributos: el curioso pilar cónico y el árbol o la lechuga... Las mismas ceremonias se desarrollaban ante ambos dioses: la ofrenda de lechugas y la escalera. Se les dan los mismos tratamientos: 'Alto de plumas' refiriéndose al tocado, 'el del brazo levantado' aludiendo a la posición del mismo, 'cuya belleza es admirada' refiriéndose a su falo erecto, y, sobre todo, el más significativo, 'toro de su madre', que expresa la autogénesis del dios» (Sethe, 1929, págs. 19-20). Este fue el momento en que Amón se aproximó tanto

al antiguo dios de la fertilidad que asumió su apariencia, «de manera que no fue con él... sino uno y el mismo dios» (Gauthier, 1931, pág. xi).

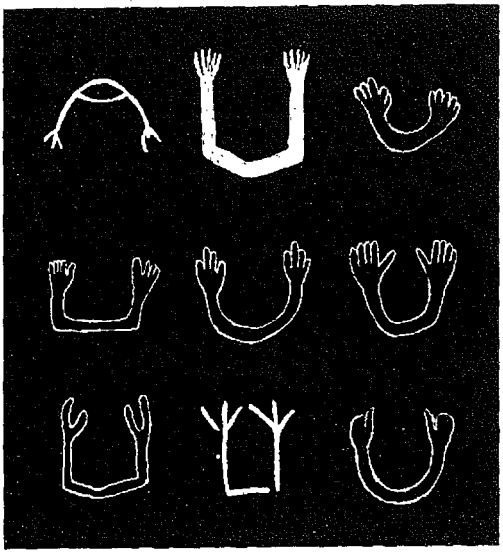
El *ka* y los conceptos primevos

Donde menos podría esperarse se tiende un puente hacia los conceptos religiosos de los tiempos primevos. Este puente es la idea del *ka*, la cual fue posteriormente elaborada por los teólogos heliopolitanos e incorporada a su sistema religioso. Ellos complicaron tanto la teoría del *ka* que llegó a ser «uno de los problemas más intrincados» (Faulkner, 1955, *pág.* 141).

El *ka* desempeñó un papel dominante entre las ideas relativas al espíritu. Cada vez que los egipcios llegaban a formular su pensamiento, se esforzaban por hallar caminos para abordar la continuidad de la vida en el más allá desde todos los aspectos posibles: el cuerpo momificado, las ofrendas y atenciones diarias, y los relieves y pinturas de las tumbas. Los productos agrícolas y artesanales reproducidos eran realidades en el sentido prehistórico, es decir, eran símbolos activos y operantes, no recuerdos del pasado. Los supervivientes tenían que renovar continuamente los alimentos exactamente especificados para asegurar el bienestar de los difuntos. Igualmente reales eran los *ushabtiu*, pequeñas figuras momiformes pintadas, que se enterraban con el difunto para servirle en el otro mundo, para realizar los trabajos pesados, o, si se trataba de mujeres, para proporcionarle placeres sensuales.

Como ulterior garantía de su vida futura, el alma estaba dividida en siete especies, cada una de las cuales tenía una función especial. Dos de ellas desempeñaban los papeles principales: el *ba* y el *ka*. El *ba* es lo que más se aproxima al concepto cristiano del alma individual. En el Imperio Nuevo, el alma *ba* era representada como un pájaro siniestro, con rostro humano y frecuentemente con manos humanas. En el momento de la muerte, esta alma abandonaba el cuerpo en forma de pájaro. Se la representaba posada en un árbol y picoteando los frutos de la tierra. La idea del alma *ba* desempeñó un papel secundario en Egipto.

Lo característico de este país es que no estuviera en primer plano el *ba* personal, individual, sino el *ka*, el cual tenía un significado cósmico mucho más amplio. El concepto del *ka* ha interesado a los egiptólogos en los últimos años, viéndose en él la clave de la naturaleza de la religión egipcia. En aparente acuerdo, el *ka* es interpretado como una especie de «fuerza vital». «La aproximación más cercana a la idea egipcia del *ka* es la 'fuerza vital'... El *ka*, según esta hipótesis, sería impersonal y estaría presente con fuerza variable en las diferentes personas» (Frankfort, 1948, pág. 62). Es una fuerza cósmica, divina, una fuerza que emana del dios y que fue provechosamente incorporada a la nueva jerarquía social. El rey, en la cumbre de la jerarquía, recibía el *ka* del dios solar. Era el poseedor del *ka* que luego dispensaba al pueblo. A través del *ka*, el rey era la manifestación humana del dios (Greven, 1952, pág. 33). «El *ka* no es solamente una fuerza divina que une al



45. Jeroglíficos del ka: *Dibujos de las formas más primitivas usadas. Tomado de H.U. Petrie.*

46. Hombre con los brazos levantados: Este gesto de dispensar fuerza es universal, desde Escandinavia (cf. vol. I, fig. 63) hasta África. La figura, de hierro, fue hallada hincada en el suelo ante una tumba. Bandiagara (Malí). Se remonta a hace varios centenares de años.

rey con sus antepasados y con la deidad, sino que también une al pueblo con su soberano y, a través de él, con la divinidad» (Jacobsohn, 1939, pág. 60).

El *ka* era una fuerza vital e invisible. ¿Cómo podía ser transferida del dios al rey? El gesto manual mediante el cual se confiere la fuerza aparece acusadamente en un grabado rupestre sueco de un demonio o dios con los brazos levantados. En los comienzos del arte sugeríamos la relación de este gesto primitivo de efusión de fuerza vital con las manos de dimensiones exageradas, y la correspondencia de su significado con los primitivos jeroglíficos del *ka* de la I y II Dinastías. Es un gesto universal, que se ha encontrado desde Escandinavia hasta el corazón de Africa, donde una figura de hierro forjado, de fecha relativamente reciente, muestra todavía las mismas manos levantadas y de tamaño exagerado.

El jeroglífico egipcio del *ka* consta de dos brazos tendidos hacia arriba con los dedos extendidos. Se ha sugerido que este jeroglífico es semejante a otro que significa «abarcar, abrazar» (Kees, 1956, pág. 44), y verdaderamente parece el mismo, sólo que en posición invertida. El poder transmisor de fuerza de este gesto de los brazos levantados se remonta a la prehistoria y se conserva todavía en los toscos jeroglíficos de la I Dinastía. Muestra cómo era transferido el poder divino. El gesto amistoso del abrazo nunca ha sido presentado con tantos matices de significado, tan vigorosa y tan frecuentemente, para hacer resaltar las estrechas relaciones del hombre con el hombre y del hombre con el dios.

El que transmite el *ka* coloca sus brazos sobre la espalda del que lo recibe, como por ejemplo el dios-halcón Horus coloca sus alas sobre los hombros del rey Kefrén, poseedor del *ka*. «La transmisión del *ka* fue llamada por los griegos 'proteger'» (Spiegel, 1953, pág. 113, § 165).

El abrazo de un dios no siempre significa transmisión del *ka*, pudiendo también significar la concesión o renovación de fuerza y poder. En un fragmento de un pilar del templo jubilar del rey Sesostris I, del Imperio Medio, que se halló enterrado en los cimientos de un pilono, el dios Ptah abraza al rey con ocasión de la celebración del Heb-Sed, invistiéndole con el renovado poder de vida y fuerza que constituía el significado interno de ese jubileo.

La idea de que el *ka* procedía del dios debió de causar una gran impresión en los egipcios. Recuérdese el relieve de la Sala de los Nacimientos del templo de Luxor, que muestra al dios Khnum con cabeza de carnero ante un torno de alfarero en el cual modela dos figuras: el rey Amenofis III, aún no nacido, futuro constructor de Luxor, y su doble invisible, su *ka*. Para Ursula Schweitzer —una malograda egiptóloga de Basilea—, la escena total, de la cual esto es sólo un fragmento, encerraba un significado más amplio, en el sentido de que primeramente la reina introduce el *ka* en el mundo, y después a su hijo (1956, pág. 63).

Ha sido Ursula Schweitzer quien más profundamente ha penetrado en los misteriosos cambios y divagaciones del concepto del *ka*. Basándose en la famosa teoría de Maspero que considera el *ka* como «un segundo ejemplar del cuerpo, de materia menos densa que la de éste» (Maspero, 1878, citado por Schweitzer, 1956, pág. 13), la egiptóloga trazó la evolución del concepto del *ka* desde la I Dinastía.

De la época del Imperio Medio, en la XII Dinastía, hay una rara estatua de madera del rey Hor, hallada junto a la pirámide meridional de ladrillos de Dahs-

47. Cabeza de Kefrén rodeada por las alas del dios-halcón Horus: Gesto que transmite el ka *y protege al rey al mismo tiempo. IV Dinastía.*

48. Sesostris I y Ptah: El dios abraza al rey en su jubileo (Heb-Sed), invistiéndole con renovados poderes de vida. Relieve de un fragmento de un pilar del templo jubilar de Sesostris. Imperio Medio.

49. Hor con el jeroglífico del ka: *El rey se halla en su «naos», llevando el jeroglífico del* ka *sobre la cabeza. Estatua de madera. Imperio Medio.*

hur. El rey está en su naos (capilla) con el jeroglífico del *ka* sobre la cabeza. Se trata de una estatua del *ka*, puesto que el rey está desnudo.

Las estatuas funerarias estaban estrechamente relacionadas con el *ka*: «Los egipcios no consideraban las estatuas funerarias como retratos de los muertos. Dichas estatuas estaban existencialmente relacionadas con los muertos a través del *ka*» (Greven, 1952, pág. 32). No era la momia la que poseía el *ka*, sino la estatua funeraria. La continuación de la vida después de la muerte estaba ampliamente asegurada por el portador del *ka*: la estatua funeraria. Por esta razón había a menudo muchas estatuas, que eran cuidadosamente protegidas en el serdab, o cámara de las estatuas, que solía estar «unida al mundo exterior por una ranura a través de la cual podía administrarse incienso» (pág. 33).

Como preparación para la recepción del *ka* estaba la ceremonia llamada de la «Apertura de la Boca», que se hacía, por ejemplo, en el templo del valle de Kefrén. Incluso hoy es impresionante ver, por las estrechas aberturas de la pared de piedra, la estatua funeraria del rey Zoser sentado, eternamente vigilante, esperando que su *ka* vuelva a él.

En esta creencia se halla oculta otra significativa idea primeva: símbolo y realidad son sinónimos.

Tercera parte:
La creación de un cosmos antropomórfico

Para hacerse una idea de la formación del mundo de los dioses antropomorfos hay que utilizar cuidadosamente la palabra «deidad», término que es empleado por lo general de una manera imprecisa y poco clara.

En la prehistoria no había dioses. Cuando se representaban figuras humanas éstas eran símbolos de fertilidad. Esta puede ser la razón principal de que las figuras femeninas sean generalmente mostradas en estado de preñez y con los pechos, las nalgas y el triángulo sexual exagerados. En Sumer, Egipto y otras partes, hacia el final de la era prehistórica comenzó a surgir lentamente un tipo femenino más esbelto, pero se mantuvo la tradicional acentuación del triángulo sexual. Las figuras masculinas —relativamente escasas— de la prehistoria eran por regla general itifálicas, expresando también el deseo de fertilidad y procreación.

La imagen prehistórica de la fertilidad femenina ha sido designada con diversos nombres: ídolo, madre tierra, Gran Madre, y también *grande déesse* o diosa-madre. Esta vaguedad puede fácilmente inducir a confusión. A través de las decenas de miles de años que van desde el período auriñaco-perigordiense hasta el alborear de la agricultura sistemática en el Oriente Medio, aparecen figurillas femeninas, siempre modeladas acentuando las partes más importantes para la reproducción. Son imágenes mágicas de satisfacción de un deseo —fetiches, dirían algunos— y su finalidad es procurar la fertilidad. No tienen un significado más profundo, como tampoco lo tienen los grabados en huesos o en las paredes de las cavernas de hombres itifálicos, a veces solos, a veces siguiendo a una mujer. Estas figuras están vinculadas a la tierra, lo cual las separa fundamentalmente del concepto de dios forjado en los comienzos de la era histórica, o posiblemente poco antes.

Todo indica que las ideas religiosas de la prehistoria nunca se liberaron de lo terrestre, sino que se concentraron en facilitar el ingreso y el reingreso en una vida terrena en la cual no se observaba ninguna distinción entre el hombre y el animal.

Los dioses de los panteones eran completamente distintos. Cada uno de ellos poseía una fisonomía claramente perfilada, tenía funciones o atributos particulares, llevaba un nombre, entraba en relación con otros dioses y formaba parte de una familia patriarcal con una autoridad dictatorial a la cabeza. El tosco anhelo prehistórico de fertilidad y procreación había dado lugar a una familia dominante organizada. La creciente multitud de dioses y de sus asambleas, especialmente en Mesopotamia, se ha comparado con un parlamento.

El cambio decisivo que acompañó a la creación de dioses inmortales con formas humanas fue su traslado al cosmos. Esta transposición tiene un significado fundamental para el ulterior desarrollo del pensamiento religioso, siendo el punto de partida de todos los sistemas religiosos posteriores, con su creciente énfasis sobre lo trascendental.

En cierto sentido, la religión de las primeras civilizaciones arcaicas representa una etapa de transición. La deidad está todavía, en alguna medida, unida a la tierra: puede fijar su residencia temporalmente en moradas creadas especialmente para ella.

Los sumerios construyeron para su dios de las profundidades de las aguas un palacio de lapislázuli en Eridu. En este templo, sobre la cima de un zigurat, tenía

lugar la sagrada cópula. Este ritual ha tenido una larga supervivencia: aun en nuestros días: el sultán de Surakarta, en Indonesia, tiene que subir a una alta torre para celebrar su unión ritual con la Reina del Mar.

En Egipto, el piramidión de la cumbre del obelisco era la residencia del dios, o, como Amón en Karnak, éste residía en su imagen cultual, dentro de la oscura cella de su templo. Sin embargo, podía ir y venir y emprender viajes. Su verdadera casa era el cosmos.

Esta transfiguración cósmica produjo una verdadera conmoción en el pensamiento imaginativo y planteó problemas que todavía preocupan a la humanidad. Se trata de la cuestión cosmogónica nunca resuelta: ¿cómo y por quién fue creado el mundo? Y hay también problemas cosmológicos: ¿cuáles son las relaciones entre la tierra, el cielo y los cuerpos celestes, y a qué norma obedecen?

Templos sin imágenes

Continuamente se tropieza con las dificultades internas que debieron de asaltar al espíritu humano ante la representación antropomórfica de los dioses recién creados. Dichas dificultades se hacen evidentes por la ausencia de imágenes de la deidad en los templos primitivos. No se encuentra ninguna estatua antropomórfica de un dios en estratos de templos de hacia 3000 a. C., lo cual no puede atribuirse al azar, especialmente en Mesopotamia, donde las primeras etapas de la evolución pueden seguirse y compararse más fácilmente que las de Egipto.

Tan cierto es esto por lo que se refiere al norte como por lo que se refiere al sur, donde los dieciséis niveles de Eridu, desde el quinto milenio hasta la construcción del zigurat, hacia el año 2000 a. C., no revelaron huella alguna de representaciones. Los altares estaban desnudos. Sólo en uno de los niveles superiores fue hallado un templo con el suelo cubierto de espinas de peces que sugerían la posible existencia, ya por entonces, de Enki, dios de las profundidades de las aguas, a quien le fue erigido más tarde el famoso zigurat. El mismo fenómeno se observa en el norte. Es cierto que en los veinte niveles de Tepe Gaura se descubrieron numerosas figurillas femeninas de arcilla (símbolos de fertilidad), así como vasijas sagradas, pero no se encontró ninguna huella de la estatua de un dios.

Hay otros muchos ejemplos, pero el más sobresaliente es el centro religioso de Uruk (la Erech bíblica). En el conjunto altamente desarrollado del templo desde su período arquitectónico cumbre (Uruk IV), los excavadores señalan los templos simplemente por letras —*A, B, C, D*— porque no hay nada que indique su consagración a un dios particular.

Los altares sin dioses y la veneración de un ser supremo sin rasgos distintivos se dieron incluso en la civilización griega. K. Schefold (1959, pág. 128) señala que en Olimpia no había ninguna estatua de Zeus excepto en el templo clásico, y que

el famoso altar helenístico tardío de Zeus en Pérgamo (hacia 180-160 a. C.) no tenía ninguna estatua cultual del dios. El podio del altar estaba vacío.

La resistencia a representar al ser supremo en forma humana es fácilmente comprensible. Aparte de la natural timidez en presentar la divinidad como análoga al hombre, lo cual también ocurre en las religiones posteriores, existía a la sazón un obstáculo más: la veneración del animal que, desde el principio, había ocupado el primer plano de los sentimientos humanos.

Las civilizaciones arcaicas mostraron una cierta timidez en la representación y exposición de sus deidades. Estas fueron generalmente personificadas en relación con el dios-rey, a veces en relieves y más raramente en esculturas exentas. La legitimidad del faraón como dios-rey apareció más claramente, y comparativamente tarde, en las tríadas del rey Micerino de la IV Dinastía, donde el dios-rey alternaba con la gran diosa protectora Hator como figura central. Estos grupos escultóricos no tuvieron continuación. En el Imperio Nuevo su lugar fue ocupado por grandes relieves coloreados, como los de Seti I en Abydos. El origen divino del soberano fue también subrayado en el Imperio Nuevo por la unión carnal de la reina con Amón-Ra, que se acercaba a ella bajo el aspecto del rey (relieves del templo funerario de Hatsepsut en Deir el-Bahari y en la Sala de los Nacimientos de Amenofis III en el templo de Luxor).

Las estatuas de deidades en forma humana no eran expuestas ni siquiera en el Imperio Nuevo. Aunque delante de los pilonos se colocaban estatuas colosales del soberano en la posición más visible, los dioses eran representados solamente por símbolos: por los seculares postes sagrados, ahora convertidos en mástiles monumentales, y por el obelisco como sede del dios supremo. Una estatua colosal como la de Atenea Prómachos en la Acrópolis, la punta dorada de cuya lanza se veía desde los barcos en el mar, habría sido inconcebible en las civilizaciones arcaicas.

De las máscaras al semblante humano

La estructura religiosa de las primeras altas civilizaciones estaba fundada en el descubrimiento de la forma humana y del rostro humano. Sin ello no se habría podido construir su edificio. Sólo después de que el hombre empezara a considerarse bello pudo utilizar su propia imagen como modelo para el objeto de culto. Sólo entonces los ojos asumieron su brillo, la boca su atractivo y la figura su gracia.

Pero para que esto ocurriera, tuvo que superarse la idea primeva del hombre como inferior al animal. Anteriormente, los cuerpos masculino y femenino habían servido sólo como símbolos de fertilidad. Con muy pocas excepciones el rostro quedaba oculto o simplemente sugerido, mostrándose sólo claramente en las criaturas híbridas con cuerpo humano y cabeza de animal, tal como el brujo de la cueva de Les Trois Frères (Ariège).

Las que hoy llamamos máscaras fueron, para el hombre primitivo y primevo, un medio de transformación en otro ser, en otra naturaleza, y un instrumento de contacto con las fuerzas sobrenaturales. De este modo indirecto se permitió que aparecieran fragmentos del rostro humano. Las máscaras condujeron al descubrimiento del semblante humano.

El rostro enmascarado de Hassuna

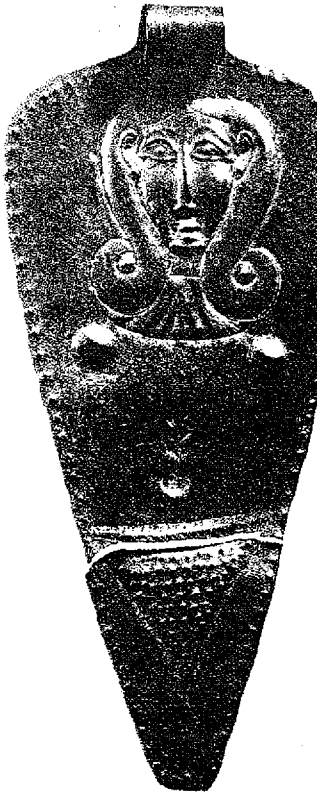
Hassuna, en el norte de Mesopotamia, es uno de los más antiguos asentamientos conocidos y arroja mucha luz sobre la cultura rural durante la transición del período neolítico a la Edad del Cobre. Pero allí había poquísimas representaciones humanas. Seton Lloyd y Fuad Safar, que excavaron con el mayor cuidado los siete metros de estratos en 1943-1944, observaron que «aparte de un rostro femenino modelado y pintado en una vasija de Samarra», todas las representaciones eran «figurillas de arcilla sin cocer, toscas y bastante indescifrables, del primitivo tipo 'diosa-madre'» (1945, págs. 262-263). El fragmento de vasija procede de uno de los estratos más profundos (nivel V) y por lo tanto de la Edad del Cobre. Además, había sido importado de Samarra, ciudad más evolucionada.

Debajo de las cejas unidas, los ojos, ligeramente protuberantes, redondos como canicas, tienen unas aberturas alargadas como es corriente en las máscaras. En cada mejilla hay tres rayas verticales o tatuajes. Los lados de la cara se pierden entre líneas verticales paralelas, en zigzag, estando cruzada la parte inferior por tres líneas horizontales paralelas. El espacio restante está ocupado por triángulos negros, con el vértice hacia abajo. Los triángulos, como los que están grabados en las urnas más antiguas de Hassuna, parecen ser un antiquísimo símbolo de promesa de vida futura: un triángulo con «el vértice hacia abajo significaba la mujer» (Stone, 1927, pág. 5).

En casi todas las tumbas del Cementerio A de Kish se encontró una jarra con asa: «Nada menos que tres ejemplares fueron hallados en la tumba 40» (Mackay, 1929, pág. 142). El asa tiene la forma de una diosa-madre. El rostro y el cuerpo están reducidos al máximo, mostrándose sólo los ojos, la nariz, la boca y los pequeños pechos. «Algunas veces... en los ojos y en los pechos también se señalan las pupilas y los pezones» (pág. 145). Inmediatamente debajo del asa hay un enorme triángulo con rayado en espiga. Su tamaño, en comparación con el resto de la figura, acentúa su significado en estas vasijas mortuorias. Sobre el hombro de la jarra, encima del reborde de perlas común en las vasijas de este tipo, dos hileras concéntricas de triángulos rayados refuerzan este significado. La cerámica más antigua de Hassuna lleva también una hilera de triángulos, pero éstos están dispuestos *verticalmente sobre el cuerpo*.

Este símbolo de fertilidad persistió a lo largo de los tiempos. Los colgantes de oro de un período tardío hallados en El-Ajjul, Gaza, «indican, mediante los pechos, el ombligo y la vulva añadidos esquemáticamente a la cabeza de Hator, una evolución gradual desde el símbolo hasta el ídolo antropomorfo de la diosa-madre» (Barb, 1953, pág. 200).

50. Rostro enmascarado modelado y pintado en el cuello de una vasija. Procedente del nivel V de Hassuna (norte de Mesopotamia). Comienzos del cuarto milenio.



51. Colgante de oro como símbolo de fertilidad: Forma de vulva, con pechos y ombligo apenas señalados pero con el triángulo sexual exagerado. Procedente de El Ajjul (Gaza), Período Tardío.

52. Figura femenina en el asa de una jarra: El rostro y el cuerpo están reducidos al máximo, pero el enorme triángulo sexual destaca bajo el asa. Olla de loza amarilla procedente del Cementerio A de Kish (Mesopotamia). Cuarto milenio.

El rostro femenino de Uruk

Casi un milenio transcurre entre el rostro enmascarado de Hassuna y la cabeza de mujer de alabastro translúcido de Uruk. Esta escultura, casi intacta, fue hallada por la expedición de H. Lenzen en 1939; el rostro, vuelto hacia arriba, estaba entre los escombros de un edificio de comienzos del período de Jemdet Nasr. Data, pues, de los comienzos del tercer milenio. No conocemos nada semejante de la misma época. Las cabezas de yeso halladas en Jericó, muy anteriores, no pueden ser consideradas como obras de expresión artística.

La aparición de este rostro de tamaño casi natural en un período tan antiguo es como el florecimiento de una planta milagrosa. La perfección que demuestra no se puede alcanzar sin antecedentes, pero éstos permanecen ocultos para nosotros. De repente aparece lo que hasta entonces no existía, el suave encanto de un semblante humano: el óvalo perfecto, la armoniosa concordancia de la frente, las mejillas y el mentón —delicado pero tenso—, y los labios cerrados, expresivos y sensibles.

Lenzen ofrece la siguiente descripción: «Las cejas repiten, con sus líneas bellamente arqueadas, la forma de los ojos almendrados y rasgados, y se juntan por encima de la hundida raíz de la nariz, de acuerdo con el ideal de belleza sumerio» (1939, pág. 85).

¿Qué significa este retrato?

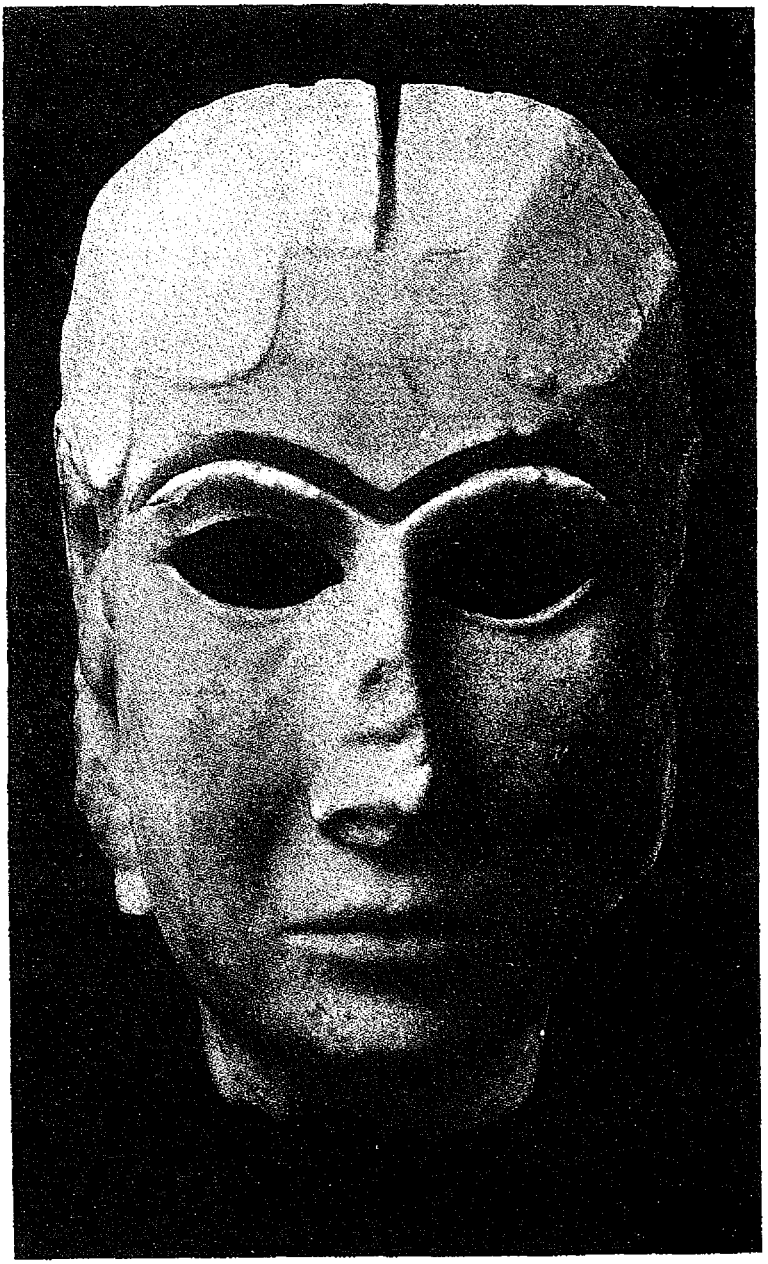
Nada indica que se trate de la imagen de una diosa. Como advirtió Lenzen, la cabeza «dista mucho de los sobrenaturales rasgos divinos» (pág. 86). No es una diosa, sino que probablemente —como en la prehistoria— lo que se halla aquí representado es un médium entre el hombre y los poderes invisibles, bajo la forma de una sacerdotisa que personifica, en todo su porte, el producto altamente refinado de una cultura urbana.

La cabeza no es un resto de estatua porque su parte posterior es plana. Casi simultáneamente fue descubierta otra cabeza de mármol en Tell Brak, al norte de Mesopotamia, que pertenece al mismo período y que carece también de la parte posterior (*Illustrated London News*, 20 de mayo de 1939, pág. 883). El cuello de la cabeza de Tell Brak es alargado y se hace más delgado en la base, señal de que se trata también de una cabeza aislada y no de parte de una estatua. Su carácter de máscara aparece con especial claridad en las orejas abstractas, en los ojos rasgados, incisos y de tamaño exagerado, y en los labios abultados.

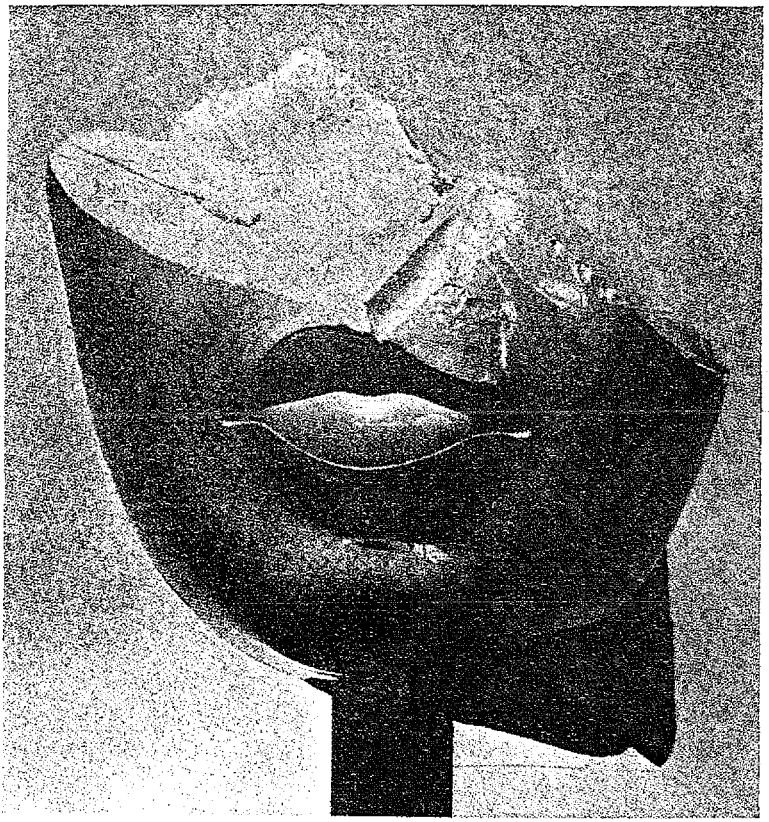
La comparación de las dos cabezas confirma el carácter singular de la dama de Uruk, en cuyo rostro reina la serenidad.

La boca

El halo de melancolía y tragedia que flota sobre el rostro femenino de Uruk no pierde en comparación con un fragmento de cabeza de mujer de la XVIII Dinastía, pero entre ambas hay una distancia de mil quinientos años aproximadamente. El enorme camino recorrido en la conquista artística del semblante humano en la época del Imperio Nuevo está plenamente reflejado en este fragmen-



53. Cabeza femenina de tamaño casi natural: Primera aparición de la nobleza del rostro humano, aunque todavía con aspecto de máscara. Los rasgos están algo aplanados y las mejillas forman casi un ángulo recto con el plano frontal. Mármol blanco, Uruk, comienzos del tercer milenio.



54. Boca de Nefertiti o de la reina Tiyi: En los mil quinientos años que separan la cabeza de Uruk y este fragmento con mejillas redondeadas y labios sensuales, la belleza humana fue descubierta y conquistada. Jaspe amarillo. Período de Amarna, XVIII Dinastía, siglo XIV a.C.

to de una cabeza de Nefertiti o de la reina Tiyi (Hayes, 1959, II, págs. 259-260). Lo directo de su expresión y el intento de llegar lo más cerca posible —más que en cualquier otro período egipcio— a la naturalidad, son típicos del corto período amarniense. Aunque el fragmento está esculpido en una de las piedras más duras, el jaspe amarillo, la vida vibra en él. Los labios, antes fuertemente apretados, se han hecho cálidos y redondeados, y su sensualidad es incluso más marcada en este fragmento que en la famosa cabeza de Nefertiti, actualmente en Berlín.

Los ojos

La acentuación de los ojos desempeña un papel principal a la hora de dar vida a las representaciones del semblante humano. Esta acentuación no existía en la es-

55. Rostro del escriba del Louvre: Esta famosa estatua policromada se halla desnuda, con un rollo de papiro en el regazo. El acento está concentrado en la cabeza firmemente modelada y, sobre todo, en los brillantes ojos de cristal que miran a lo lejos. V Dinastía, tercer milenio.

cultura primeva. Más tarde, llevados por el deleite de los nuevos descubrimientos, los escultores dieron a los ojos una insólita vivacidad mediante la incrustación de materiales coloreados, como en la cabeza de Uruk o en los ojos hipnóticos, de exagerado tamaño, de las estatuas de Tell Asmar.

En la famosa estatua, de piedra caliza, de un escriba de la V Dinastía (Louvre), todo está concentrado en los ojos. El escriba está sentado, con el torso desnudo, las piernas dobladas y el cuerpo rígidamente erguido. Los ojos, de alabastro, piedra negra, plata y cristal, miran fijamente a la distancia, como si estuvieran atentos a recibir un mensaje de la eternidad que deberá ser trasladado inmediatamente al rollo de papiro que se extiende sobre el regazo. Se ha sugerido que la figura puede representar al gobernador de un nomo: un nomarca.

El descubrimiento del cuerpo humano

Cuando Egipto llegó a adquirir conciencia de sus facultades artísticas, que habían dormitado bajo la superficie durante mucho tiempo, el preludio sumerio empezó a palidecer.

El acontecimiento decisivo fue el descubrimiento del cuerpo humano. Los primeros pasos resultaron en esculturas tales como la estatua del *ka* del rey Zoser, de la III Dinastía, los relieves de este mismo rey en sus cámaras subterráneas en Saqqara, y los de Hesiré de la misma dinastía. Desde el punto de vista del tratamiento plástico del cuerpo, una gran distancia separa la estatua de Zoser de la de Kefrén, de la IV Dinastía, en la cual la estructura corporal está enérgicamente plasmada.

Bajo Micerino, una generación después de Kefrén, despierta la conciencia de las cualidades plásticas del cuerpo femenino y con ella el deseo de dar expresión escultórica al perfecto encadenamiento sinuoso de sus formas. Desde esta época en adelante, el cuerpo femenino estuvo entre los más altos objetivos de la escultura. No podemos calibrar lo que esta audaz manifestación significó para el pueblo de la IV Dinastía.

La belleza femenina como objeto de representación

Los grupos escultóricos del rey Micerino, con la diosa Hator a su derecha y el dios o la diosa de uno de los nomos a su izquierda, son el mejor testimonio del descubrimiento de la belleza femenina. G. A. Reisner desenterró varias de estas tríadas de entre los escombros del templo del valle de Micerino en Gizeh, en 1908-1910. Los cuatro grupos que pudieron ser reconstruidos —otros permanecen en fragmentos— están en los museos de El Cairo y Boston. El gran grupo de El Cairo lo estudiaremos más adelante desde otro punto de vista. Aquí nos ocu-

paremos de un aspecto altamente original de estas esculturas: el tratamiento plástico que se da al cuerpo femenino.

Gaston Maspero era director general del Service des Antiquetés en la época en que estas esculturas salieron a la luz. Con una perspicacia muy francesa, reconoció en seguida su finura artística, observando que los escultores que «trabajaron los esquistos eran mucho más hábiles» que los que trabajaban en alabastro (trad. ingl. 1913, pág. 48). Maspero destacó la maestría del artista que podía manejar un «material tan ingrato» como el esquisto «con la misma flexibilidad que si estuviera moldeando la arcilla más dúctil» *(ibíd.)*.

Maspero observó que «las mujeres son especialmente notables por sus hombros redondeados... el vientre fuerte y bien diseñado, los muslos llenos y delicados, las piernas vigorosas: uno de los tipos más elegantes creados por el Egipto menfita» *(ibíd.)*. Pero estas figuras no solamente eran elegantes y graciosas, sino que constituyeron la primera aparición de la belleza femenina en el arte.

Fragmento de una tríada de Micerino

En los grupos completos, la atención queda rápidamente absorbida por las cabezas: los rostros, las pesadas pelucas y los tocados de Hator con el disco solar entre sus dos cuernos de vaca. En los fragmentos, estos detalles, condicionados por su época, han desaparecido. Nada distrae la atención de su aspecto intemporal: la maestría plástica de la figura femenina.

El siglo pasado no concedía mucho valor a los fragmentos. Cada estatua tenía que ser restaurada como si se tratara de una tetera rota. Hoy pensamos de otro modo: la intensidad contenida en un torso nos ha sido revelada por una larga serie de escultores, desde Maillol y Rodin hasta Lehmbruck, Brancusi y Arp. El fragmento de Hator descrito más abajo cumple plenamente lo que siempre buscó Maillol en los estudios del cuerpo humano: la armonía existente en la interacción de las tensiones de volumen y superficie. No es sorprendente que esto fuera representado por primera vez en el período en que fueron construidas las pirámides.

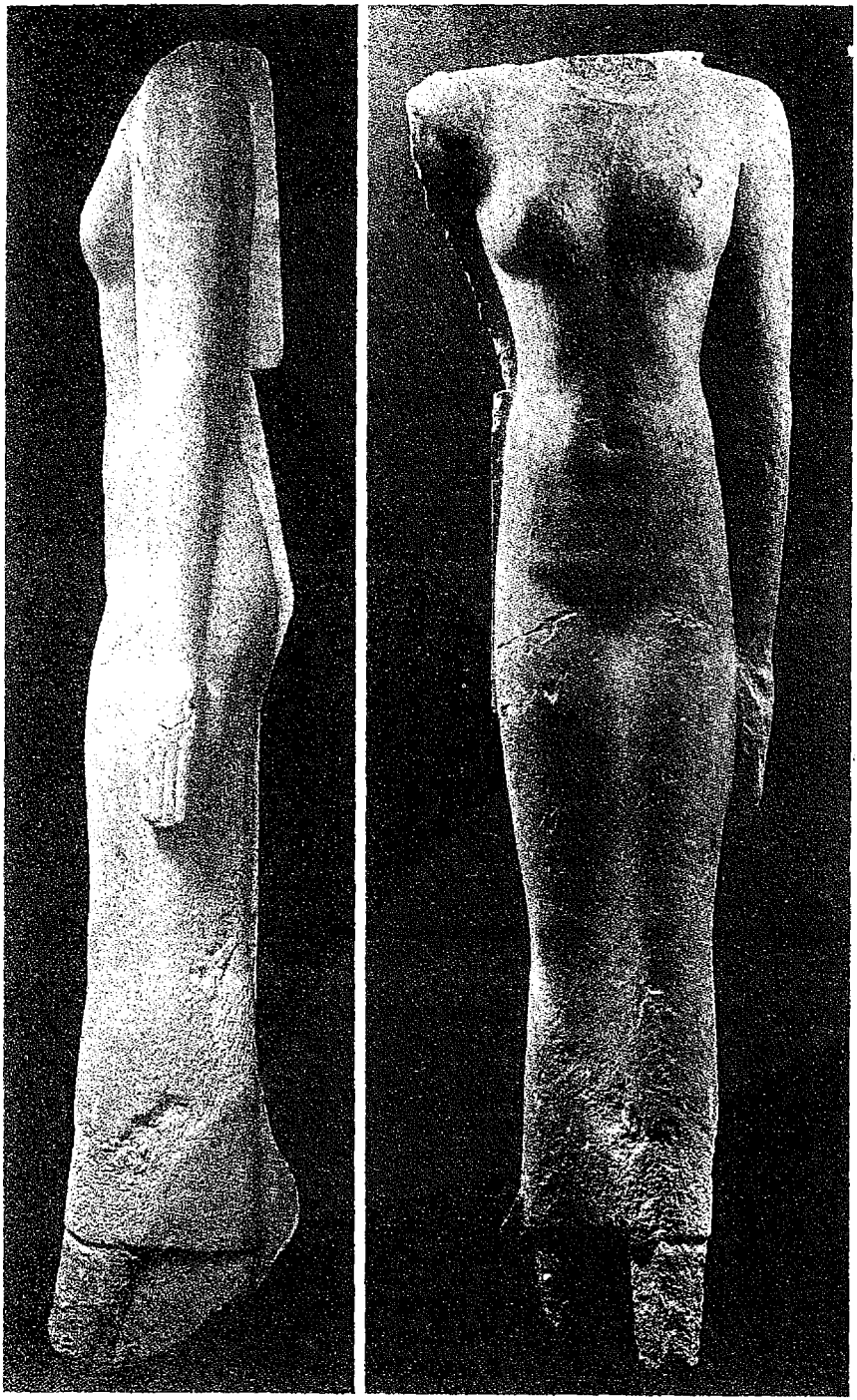
Un fragmento de una de las tríadas de Micerino, una de las más bellas esculturas egipcias existentes, fue recientemente extraído de los depósitos del Museo de Bellas Artes de Boston, por iniciativa de W.S. Smith, y llevado a la sala de exposiciones. Dicho fragmento es de pizarra verdinegra, tiene solamente ochenta centímetros de altura, y ha sido descrito por E.L.B. Terrace (1961, pág. 41).

Sólo queda parte del cuerpo del rey: la figura central vigorosamente modelada, que avanza hacia delante. Su acompañante de la izquierda está también muy deteriorado. Pero por obra de la casualidad el cuerpo de la diosa Hator se ha conservado intacto. Faltan la cabeza y los pies, lo cual hace resaltar más fuertemente aún la calidad del torso, la magistral combinación de los audaces, curvados contornos, y el minucioso tratamiento de los detalles.

El cuello cilíndrico, roto, está enmarcado por los extremos de la peluca de Hator. Los hombros describen una suave curva. La línea del hombro izquierdo baja a unirse con el brazo que cuelga indolentemente y cuya mano sujetaba la mano derecha del rey. Los brazos están claramente separados del cuerpo. El con-

56. Fragmento de una tríada de Micerino: Estela de pizarra (80 cm) con la diosa Hator, el rey Micerino y un dios muy deteriorado (no visible aquí). Procedente del templo del valle de Micerino en Gizeh. IV Dinastía.

57. Diosa Hator. Detalle de la figura 56. Una de las primeras representaciones de la belleza femenina. El cuerpo humano se ha convertido en soporte digno de una deidad.



58. Torso de mujer: Dos aspectos de una figura de tamaño natural que forma parte de una tríada familiar. Procedente de la tumba de Ra-uer de la V Dinastía, Gizeh.

torno del torso fluye sin interrupción desde debajo de los hombros hasta más abajo de las rodillas. Las caderas están apenas sugeridas.

Los detalles del cuerpo aparecen modelados con la misma sutileza. La modulación plástica está concentrada en el torso y las formas purificadas a través de un ligero proceso de abstracción. Los pechos, rotundos, resaltan como hemisferios, libres de detalles naturalistas. Un profundo surco corre verticalmente hacia arriba desde el ombligo, finalizando entre los pechos.

El grupo estaba antaño policromado, pero en su estado actual la luz que resbala sobre la estatua de Hator muestra incluso mejor la delicadeza del tratamiento escultórico. Aunque la diosa viste un largo manto, su cuerpo parece desnudo, porque se trasluce a través de la ajustada tela como a través de un cristal. Hasta la piel se convierte en una membrana transparente. Una suave cavidad marca el final del torso, y los músculos del vientre se hacen visibles mediante leves ondulaciones horizontales. Un cuerpo hecho para la procreación se ha convertido en bello y sagrado vehículo para la encarnación de una diosa.

Un torso de mujer

Pariente cercana de la figura de Hator en la fragmentaria tríada de Micerino es una figura de tamaño natural, hecha con piedra caliza de Tura, que se encuentra en el Museo de Worcester, en Massachusetts (Cott, 1935-1936, pág. 17). Se ha establecido provisionalmente que la pieza procede de un grupo familiar sacado clandestinamente de una tumba de Gizeh (Cooney, 1945 págs. 54-56). Otras figuras de este grupo están en el Museo de Brooklyn y en Kansas City.

Los perfiles y el modelado del cuerpo son muy parecidos al fragmento de Hator, aunque no lo igualan en delicadeza, lo cual puede deberse en parte a que la calidad de la ejecución de las esculturas de la IV y V Dinastías era inferior en las obras hechas en alabastro y piedra caliza respecto de las hechas en piedras más duras, como el esquisto y el basalto (Maspero, trad. ingl. 1913, pág. 48).

La postura es la misma. Aunque la posición de la pierna izquierda insinúa un movimiento hacia delante, está paliado por la quietud que irradia de la estructura claramente simétrica de la figura, con su inalterable interacción de formas orgánicas simples.

No hay nada en estos cuerpos aristocráticos que recuerde las animalescas figurillas prehistóricas o ídolos de la fertilidad. Un nuevo ideal de la forma femenina surge aquí por primera vez para no ser abandonado nunca más: la representación de la mujer en la cima de su belleza juvenil.

Esta radical transformación tuvo raíces mucho más profundas que un mero cambio en el gusto erótico. En los tiempos primevos todo el interés se concentraba en la reproducción de las especies, tanto animales como humana. Pero en el Egipto altamente civilizado se impuso otra exigencia: el deseo de seguir viviendo interminablemente, en perpetua juventud. En otras palabras, el desnudo femenino careció de significado erótico tanto en la prehistoria como en las primeras civilizaciones arcaicas. El cambio comenzó en Grecia. Antes de la época griega el cuerpo femenino era un receptáculo, bien de la fertilidad, bien de la imperecedera juventud en el más allá.

Queda una pequeña herencia de la tradición prehistórica: el cuidado puesto en la indicación de la región ventral, con la típica acentuación del triángulo sexual, común a todos los ídolos de la fertilidad desde el período auriñaciense en adelante. En las estatuas egipcias la forma suele estar marcada por un ligero pliegue horizontal.

La era de las pirámides fue, durante la IV Dinastía y parte de la V, la era de la escultura. En la época de Micerino, la escultura egipcia mostró un interés pasajero por la forma más alta de expresión plástica: la escultura de bulto redondo. Se diría que nos hallamos en el umbral de la evolución griega de los siglos V y IV a. C. Pero no fue éste el camino seguido por la escultura egipcia, que permaneció unida a la roca.

El cuerpo humano en la escultura sumeria

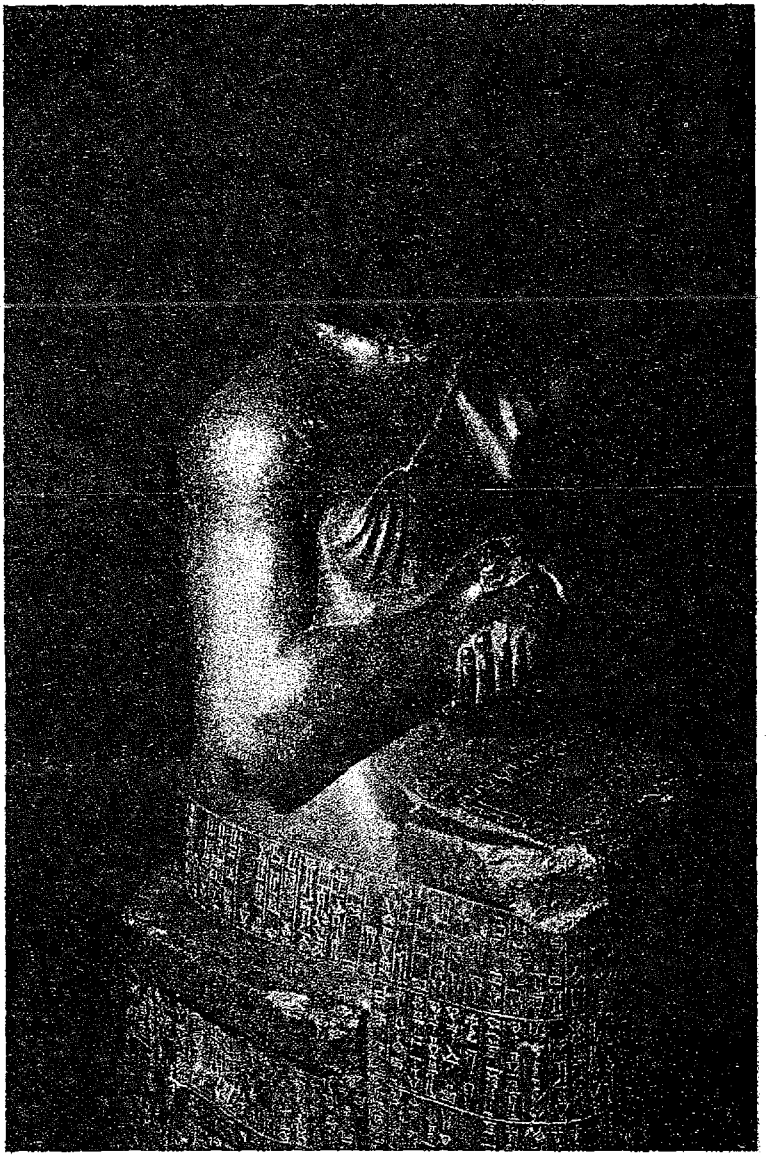
Cuando se trata de saber cuál fue el tratamiento dado en Sumer al cuerpo desnudo, se busca en vano una representación de la diosa sumeria del amor, Inanna, que pudiera corresponderse de algún modo con la figura de Hator.

Los sacerdotes sumerios permanecían desnudos ante la deidad. Tenían que ser apuestos y bien formados. Podría suponerse que este fondo religioso engendraría un interés por el dominio de la representación del cuerpo humano. Pero no fue así. Más bien se tendía a ocultar el cuerpo dentro de vestidos largos, con faldas acampanadas. La parte superior del cuerpo se mostraba todavía desnuda en los relieves y estatuillas del período Dinástico temprano, pero pronto fue también cubierta por el pesado manto de lana. Sólo los brazos y las piernas quedaban libres, como en una serie de figurillas de piedra del templo de Tell Asmar (Museo de Bagdad; Oriental Institute de Chicago). La mayoría de las figuras son barbadas, con los grandes ojos muy abiertos y las manos cruzadas en actitud orante.

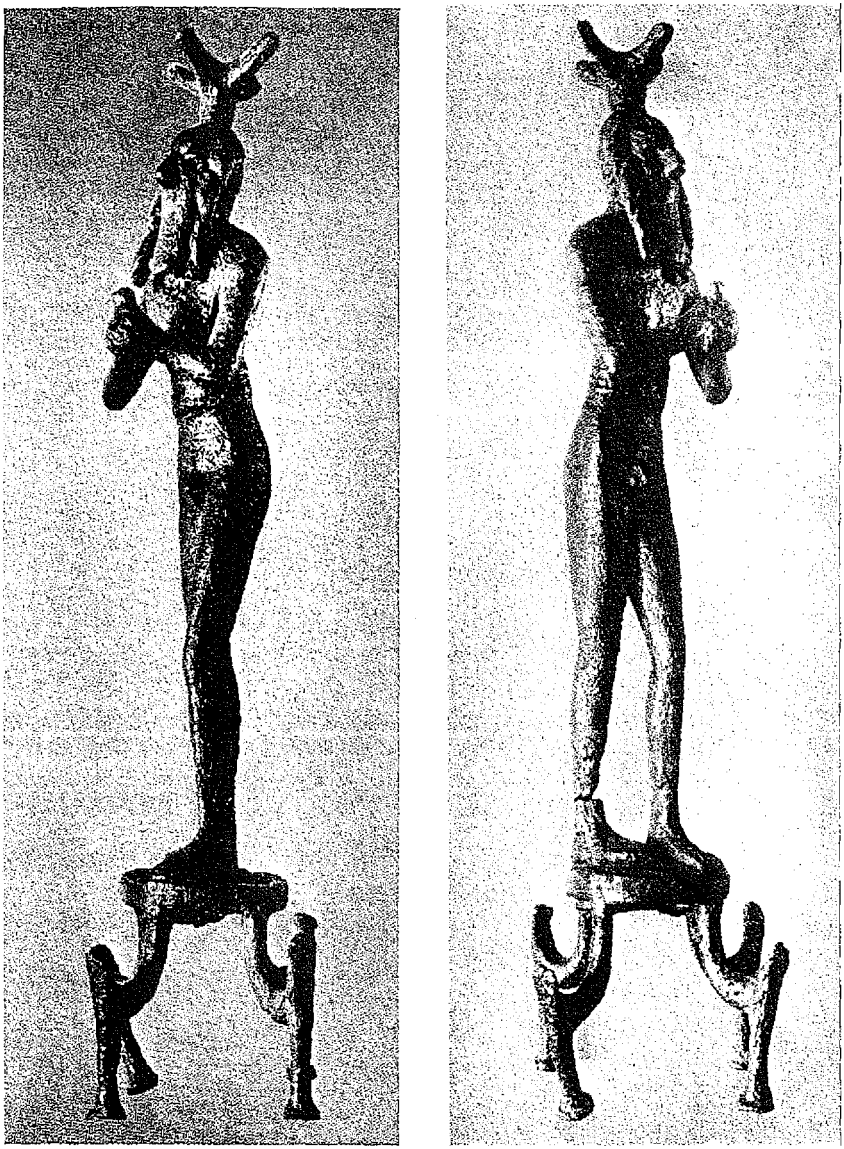
Esta tradición se mantuvo a lo largo de tres milenios. Sus productos finales fueron los relieves, gigantescos pero de algún modo estériles, del último período asirio, en los que el cuerpo aparece completamente tapado hasta los pies. Puede ser que estas prendas rituales expliquen por qué —en contraste con Egipto— no hubo en Sumer ninguna investigación plástica del cuerpo humano.

Sin embargo, Sumer tuvo un corto período durante el cual fue superado el obstáculo de los pesados ropajes y se dio expresión a la dignidad humana y a la piedad interior. Las grandes estatuas de diorita de Gudea, el rey-sacerdote de Lagash (Tello), la mayor parte de las cuales se halla en el Louvre, ostentan, cosa insólita, una fuerte expresión de profunda seriedad y piadosa meditación (Parrot, 1948). En estas estatuas todo está concentrado en el semblante. El cuerpo apenas se nota, sepultado bajo el pesado manto como bajo una armadura. Sólo las manos hablan.

Gudea reinó poco antes de la III Dinastía de Ur y al comienzo de ésta, y por consiguiente alrededor de medio milenio después de la época de las esculturas de Micerino. Las estatuas de Gudea fueron colocadas, como intercesión duradera del rey-sacerdote, en un templo público erigido al dios de la ciudad, Ningirsu, y otras deidades. Este templo es muy diferente de los conjuntos funerarios egipcios, cuyo acceso estaba vedado al pueblo.



59. Estatua sedente de Gudea, rey-sacerdote de Lagash, con el plano de un templo en el regazo. La forma del cuerpo desaparece bajo el pesado manto, excepto las manos, finamente modeladas, entralazadas en posición orante; hacia 2100 a.C.



60. Estatuilla de cobre de un sacerdote desnudo, de pie sobre un pedestal, desde dos puntos de vista. La flexibilidad del cuerpo en actitud orante recuerda la estatuaria griega. Peana de ofrendas del templo de Khafaji. Período Dinástico Temprano.

Las estatuas de Gudea son puras esculturas de bulto redondo y estaban efectivamente destinadas a disponerse libremente en el espacio. La más grande, en el Louvre, reproduce a Gudea en su facultad más destacada, como constructor de templos. Sobre sus rodillas descansa el plano de un templo y los instrumentos de medida, tal como, de forma algo diferente, están perpetuados en la estela de Ur-Nammu de Ur, su coetáneo más joven.

Las vasijas esculpidas en piedra caliza del período protoliterario, en el tercer milenio, llevaron el altorrelieve a límites extremos. Los dos ciervos de una gran placa de cobre de Al'Ubaid tienen también tres cuartos en altorrelieve, sobresaliendo partes de ellos fuera del marco. De tales ejemplos podría deducirse que anunciaban un fuerte desarrollo escultórico. Pero no fue así. La promesa de un impulso temprano de la escultura en Sumer se desvaneció.

Los puntos de partida de esta tendencia no desarrollada jamás se encuentran en los objetos menores. En el templo de Khafaji, en la Mesopotamia central, Frankfort y P. Delougaz descubrieron varias estatuillas de cobre del período Dinástico Temprano, las cuales representaban sacerdotes que llevaban una faja por todo vestido (Frankfort, 1939b, láms. 98-103). Dichas estatuillas se alzaban sobre un airoso pedestal de cuatro patas que servía de soporte de ofrendas en el templo. Las manos están entrelazadas en actitud orante.

Estas figuras no tienen eje vertical ni plano mediano. El cuerpo se ha flexibilizado. Los brazos se curvan libremente y se adelantan, y las piernas, ampliamente separadas, crean una tensión espacial. El torso está ligeramente inclinado hacia delante en un momentáneo movimiento de rotación. Esta audaz conquista de la tercera dimensión habría sido imposible en Egipto, cuyos cánones artísticos eran diametralmente opuestos. El movimiento tridimensional en escultura no se desarrolló sino más tarde, en Grecia. El impulso mesopotámico fue episódico y se paró en seco.

La aparición de las deidades antropomorfas

Todavía hay opiniones muy diferentes acerca de cuándo aparecieron por primera vez las deidades antropomorfas. La cuestión afecta profundamente a la historia del hombre, pero hay pocas pistas claras que conduzcan a una respuesta.

Tanto las fuentes literarias como las pictóricas son sumamente escasas. En literatura lo más esclarecedor es la epopeya de Gilgamés, probablemente escrita en la última parte del tercer milenio, hacia 2600 a. C. Gilgamés, un ejemplo típico de la figura del héroe recientemente creada, parece haber reinado sólo unos pocos siglos antes en Uruk, y, por consiguiente, aproximadamente en la época de Uruk III o de Uruk IV, el período de Jemdet Nasr y la época de la primera gran arquitectura.

En la epopeya el mundo de los dioses está ya bien establecido. Encontramos la serie completa: la diosa antropomorfa Inanna, el demonio Humbala, Gilgamés,

el héroe mortal que busca la inmortalidad y que se halla entre los dioses y los hombres, y Enkidu, su compañero híbrido. Todos están incorporados a la acción, la cual se halla ya impregnada de la tragedia que satura la historia y el arte mesopotámicos.

En Egipto, más propenso a la expresión visual que a la literaria, la representación pictórica constituye la mejor fuente de información, ya que los Textos de las Pirámides, aunque ciertamente se remontan a mucho antes, no aparecen puestos por escrito hasta los grabados de las paredes de la cámara mortuoria de una pirámide de la V Dinastía.

En la prehistoria, como hemos visto, hubo siempre un rechazo a representar la figura humana. Ambas civilizaciones arcaicas, Egipto y Sumer, parecen a primera vista haber sentido un reparo similar en lo que se refiere a representar las formas humanas de sus recién creados dioses antropomorfos.

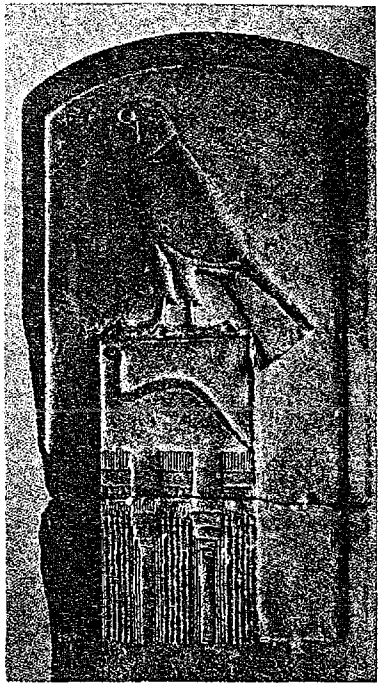
Las opiniones difieren en cuanto a si, al principio, solamente se utilizaron símbolos, tales como el haz de cañas sagrado de la diosa Inanna en Sumer, o el escudo con flechas cruzadas de la diosa Neit en el Egipto prehistórico. ¿Existieron los símbolos primero, independientemente, o fueron asumidos por las deidades antropomorfas posteriores o asignados a éstas? ¿Experimentaron estos símbolos abstractos una transformación similar a la de Hator, la vaca celeste que tomó forma humana, o a la de las constelaciones tanto en Sumer como en Egipto, que se convirtieron en dioses antropomorfos? Tales preguntas apenas pueden ser contestadas inequívocamente.

La resistencia prehistórica a reproducir el semblante humano y la tendencia a sustituirlo por rostros animalescos o cabezas de animales perduraba en Sumer y en Egipto en los comienzos de la era histórica, cuando se creó el panteón antropomórfico.

El intento de hacer remontar un monoteísmo primitivo a los comienzos del período musteriense —hace unos cincuenta milenios— ha sido ya abandonado. Las relaciones con las fuerzas desconocidas no se ajustaron a formas circunscritas durante toda la prehistoria. No existen antes del período histórico representaciones establecidas de dioses con forma humana. Las pruebas existentes son escasas y dudosas. En el Ashmolean Museum, por ejemplo, hay una figurilla de basalto, de 40 centímetros de altura, de un hombre con larga barba y el pene cubierto por una funda. Dicha figurilla ha sido descrita por W. S. Smith (1958, págs. 13-14), quien cree que puede ser un dios. También conocemos un pequeño dibujo de la I Dinastía, frecuentemente interpretado como el dios Ptah.

En las principales representaciones de la I Dinastía los dioses-animales son mostrados aún en su forma animal como poderosos señores protectores. El dios de los reyes, Horus, no había adquirido todavía su forma híbrida posterior: una cabeza de halcón sobre un cuerpo humano. En el bello relieve de piedra caliza de la tumba del rey Zet, en el Louvre, Horus es todavía enteramente un halcón. Se halla encaramado en un rectángulo que contiene el jeroglífico del nombre del rey —una serpiente— y una reproducción de la entrada al palacio; de esta manera Horus protege tanto la persona como la residencia del rey.

La creación del panteón de divinidades es paralela a la creación del Estado. La opinión del filósofo de la religión holandés G. van der Leeuw de que Dios «es un



61. Estela del rey Zet: El dios Horus, que no ha adquirido aún rasgos humanos, aparece como un enorme halcón que protege tanto al rey —representado por su firma, una serpiente— como la entrada al palacio. Procedente de Abydos, I Dinastía.

recién llegado en la historia de la religión» (1933; trad. ingl. 1938, pág. 104) se hace cada vez más creíble.

Sumer

Ninguna representación pictórica de deidades fue hallada en los primitivos templos sumerios, ni en el templo de Al'Ubaid dedicado a la diosa-madre Ninhursag y adscrito a la I Dinastía de Ur, ni en los grandes templos de Uruk III. Las figuras desnudas con fajas sacerdotales que vemos en relieves de piedra y vasijas de Uruk III y de otras partes, que aparecen empeñadas en batalla o protegiendo a los animales sagrados, no son dioses. Tampoco lo son los hombres-toros que frecuentemente aparecen en parejas en sellos y relieves. Pero esto no significa que en aquella época no existiera ningún dios del panteón sumerio.

El vaso de alabastro de Uruk

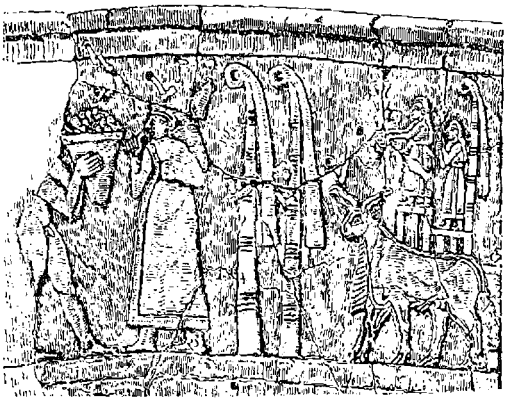
Un vaso de alabastro que forma parte de una colección de hallazgos (1933-1934) procedente de dos salas de una construcción del último nivel de Uruk III, muestra tal vez mejor que ninguna otra obra la incertidumbre que envuelve la aparición en forma humana de la deidad. Esta vasija, de un metro de altura aproximadamente, muestra en cuatro franjas que van aumentando de tamaño una presentación de ofrendas. La franja inferior reproduce el mundo de las

plantas comestibles; inmediatamente encima están los animales domésticos; a lo largo de la tercera franja hay una procesión de sacerdotes desnudos que portan vasijas libatorias y ofrendas en cestos cónicos, y finalmente, en la franja superior más ancha, la procesión se acerca al santuario, indicado por el haz de cañas, símbolo sagrado.

«El gran vaso de alabastro —escribe su descubridor, E. Heinrich— estaba caído y aplastado bajo el peso de la obra de albañilería, de manera que se había roto en quince pedazos... Aun antes de ser enterrado en este lugar... el jarrón se había roto y había sido reparado mediante tiras de cobre» (1936, pág. 15).

La figura femenina vestida que se halla delante del santuario, ¿es Inanna, la diosa de la fertilidad, o una sacerdotisa? No es posible dar una respuesta concluyente porque falta un fragmento decisivo: el tocado de la figura femenina central. ¿Llevaba la corona con cuernos, signo distintivo de una deidad en las representaciones posteriores? Frankfort cree que los dos haces de cañas establecen la divinidad de la figura, «ya que el haz de cañas es el prototipo pictográfico del signo con que se escribía el nombre de la divinidad en los tiempos históricos» (1954, pág. 10).

Un indicio de que es una sacerdotisa y no la propia Inanna la que está representada en este vaso de alabastro, procede de otras dos fuentes del mismo período. Un cilindro-sello del Museo de Bagdad muestra una escena de ofrenda con dos cestos cónicos similares conteniendo frutos, colocados sobre el suelo. Delante de los cestos hay dos haces de cañas, de la altura de un hombre, sin sacerdotisa ni diosa (1939b, lám. Vc). En el templo de Inanna en Uruk había una artesa, también contemporánea del vaso de alabastro. Dicha artesa muestra el sagrado rebaño de



62. Vaso de alabastro de Uruk: Detalle. Los objetos más visibles son los haces de cañas, de tamaño superior al de un hombre, símbolos de la diosa Inanna. A la izquierda, un hombre desnudo ofrece frutos en un recipiente cónico. La disposición permite suponer que la figura que recibe la ofrenda es una sacerdotisa. Comienzos del tercer milenio. Dibujo de Heinrich.

ovejas regresando a una choza de cañas que cobija a sus corderos. La presencia de la diosa está anunciada por dos altos símbolos de Inanna que se levantan sobre la choza de cañas. Otro haz de cañas, probablemente uno de dos, protege la parte posterior del rebaño. La colocación de estos símbolos en la escena se parece mucho a la del vaso de alabastro.

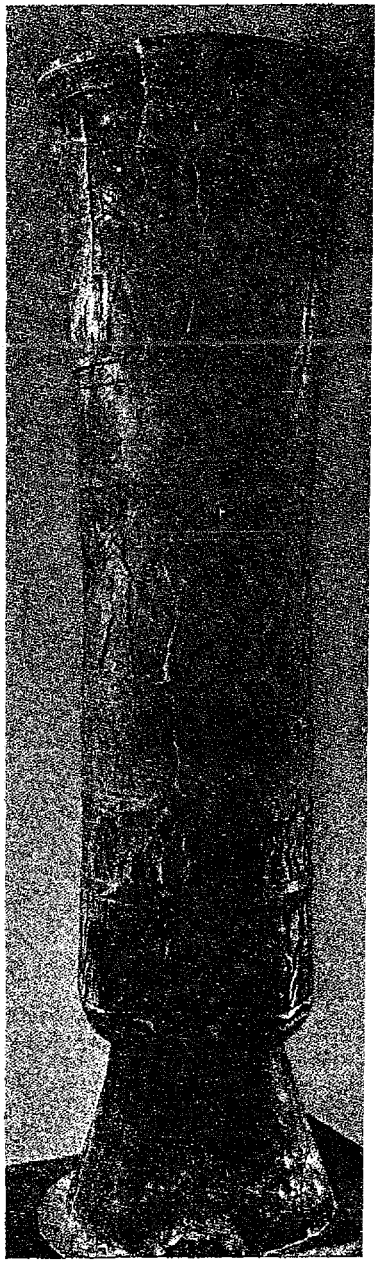
Heinrich no se pronuncia sobre si debería admitirse a «el personaje que recibe las ofrendas como la propia diosa o solamente como su representante, una sacerdotisa» (1936, pág. 16).

Conocida la vacilación de este período en lo que se refiere a la representación de deidades claramente caracterizadas, no parece que exista ninguna razón para mirar esta figura, indudablemente dominante, como una deidad.

Desde la mitad del tercer milenio hay representaciones de deidades antropomorfas en relieves y cilindros-sellos. La llamada Estela de los Buitres revela la situación en este período más claramente que cualquiera otra representación, con su audaz intento de retratar al mismo dios en efigie. Ningirsu, el dios protector de Lagash, es representado con la altura de una montaña, invencible e implacable.

La representación en gran tamaño de la deidad indica la novedad del intento de dar forma humana a un inmortal. Más tarde, el dios es mostrado en un tamaño no mayor que el de los mortales, sentado en su trono como un rey terrenal y solamente diferenciado por su tiara de cuernos.

63. Relieve en una artesa de piedra: Los objetos más grandes son los haces de cañas de Inanna, que sobresalen por encima del establo sagrado. Del mismo período que el vaso de Uruk.



64. Vaso de alabastro de Uruk: Las bandas inferiores de relieves representan plantas, animales y hombres que llevan ofrendas. La banda superior reproduce la escena de la ofrenda ante el santuario de Inanna. Comienzos del tercer milenio. Un metro aproximadamente de alto.

Los dioses astrales de Sumer

Con la creación de dioses antropomorfos se expande la idea primeva: la inmediata proximidad del hombre prehistórico al animal y su contacto directo con él pasan a segundo plano. Se establecen dimensiones más amplias: el mundo y el mundo subterráneo, las aguas y los torrentes, el aire y las tempestades, el cielo y los cuerpos celestes, todo es absorbido en el proceso antropomórfico. En detalle, los métodos por los cuales se produjo esta transformación fueron diferentes. Pero el principio era el mismo.

La prehistoria nunca había dado una forma definida al poder invisible, pero con las primeras altas civilizaciones llegó la racionalización de lo intangible en forma de dioses antropomorfos. El hombre se proyectó en el infinito. En las imágenes religiosas se contienen las formas germinales de ese *hubris* que será invocado después por el hombre en su deseo de llegar a ser dueño de toda la naturaleza.

El dios lunar Sin, o Nannar (sumerio), era la media luna. Era el más antiguo de los tres supremos dioses astrales y padre de los otros dos: el dios solar Šamaš o Anu (sumerio) y su hermana gemela Ishtar o Inanna (sumeria). El dios solar era el que intercedía ante la luna, de quien nacería el día.

En una estela de tres metros del rey Ur-Nammu de Ur, compuesta a partir de pequeños fragmentos de piedra, el dios lunar Nannar aparece en el registro superior, sentado en un trono con Ur-Nammu de pie delante de él y recibiendo la orden de construir el zigurat de Ur, del cual era considerado propietario el dios lunar. La fuerza del componente cósmico en el pensamiento de la época se deduce del tamaño de los cuerpos celestes en este relieve. Una media luna coronada por una estrella constituye su rasgo más destacado, en la parte superior de la estela y más grande que el dios entronizado.

El símbolo del dios solar, Anu, era una rueda solar con cuatro radios ondulados (rayos de sol).

Inanna, el tercer miembro de la trinidad, era la diosa de Uruk, el centro religioso de Sumer. En este aspecto era hija del dios lunar Nannar. También fue representada como hija de Anu, cuando era única y cuando las demás deidades dependían de la ciudad. En Ur, Inanna era hija de Nannar, pero en su propia ciudad de Uruk, donde junto a su santuario se hallaba el enorme recinto del templo y el zigurat del «Señor del panteón», Anu, ella era hija de esta divinidad suprema. En este aspecto aparece en el poema épico de Gilgamés, donde llora ante Anu la cautividad del héroe. Todo esto demuestra la importancia de Inanna en Mesopotamia. En el panteón de Sumer, expresamente masculino y patriarcal, Inanna alcanzó una prominencia extraordinaria, la cual mantuvo hasta la caída de Babilonia. En su forma antropomórfica llegó a ser una mujer frenéticamente apasionada, algo desconocido entre las diosas de Egipto.

Al principio Inanna había sido una diosa de la fertilidad. Su símbolo primitivo, un haz de cañas atado, era típico de una comunidad recientemente establecida, basada en el cuidado de las tierras y del ganado. Este símbolo probablemente fue anterior a su forma antropomórfica y a su trasplante al cielo.

Durante el transcurso del tercer milenio se completó la identificación cósmica. Inanna se encarnó entonces en el resplandeciente planeta Venus, el objeto más

65. Estela de Ur-Nammu: Detalle. El dios lunar Nannar, el más viejo de los tres dioses astrales y señor de la ciudad de Ur, sentado en un trono. Ante él se encuentra Ur-Nammu recibiendo el mandato de construir el zigurat de Ur. El tamaño de los cuerpos astrales indica su importancia. Finales del tercer milenio.

brillante del cielo vespertino. Pero su metamorfosis iría más lejos. En la epopeya de Gilgamés, hacia 2600 a. C., era una mujer agresiva y sensual; en tiempos de Gudea de Lagash, hacia 2000 a. C., se había convertido en una diosa de la guerra sedienta de sangre, y eso siguió siendo en adelante.

Los tres cuerpos celestes más notables —la luna, el sol y Venus— forman una tríada astral que se repite bajo diferentes nombres en el posterior período mesopotámico. La Torre de Babel fue dedicada al dios solar Marduk, y el famoso pórtico de Babilonia, a través del cual tenía que pasar la procesión de Año Nuevo, llevaba el nombre de Ishtar (Inanna).

Aparte de esta tríada —luna, sol, Venus— había una segunda compuesta por An (o Anu), regente principal del panteón sumerio; Enlil, el dios de la tormenta y ejecutor del destino; y Enki, dios de la artesanía y de las aguas vivificantes de la sabiduría. Algunos estudiosos de Sumer añaden a esta tríada la gran diosa-madre Ninhursag (Kramer, 1956, pág. 84).

El dominio de los dioses Anu, Enlil y Enki no estaba ya limitado a astros individuales, sino que se extendía a sectores completos del firmamento. «Entre los tres soberanos del mundo visible, los astrónomos repartieron la zona celeste delimitada por los trópicos de Cáncer y Capricornio. Esta parte del firmamento fue dividida en tres rutas: una banda central, a ambos lados del ecuador, formaba la ruta de Anu; la banda situada al norte era la ruta de Enlil, y la banda situada al sur era la ruta de Ea [Enki]»(Dhorme, 1949, pág. 36).

Además de las tres grandes tríadas había un número casi infinito de dioses astrales menores, vinculado cada uno a una determinada constelación. Incluso el dios del infierno, Nergal, estaba identificado con el planeta Marte.

Los kudurru: *símbolos y deidades astrales*

Según la fecha que se atribuya a la primera caída de Babilonia, Mesopotamia estuvo dominada durante unos cuatrocientos años por los miembros de una tribu salvaje de las montañas del Zagros. Todo este período, particularmente al comienzo, es poco conocido. Entre sus pocos restos arquitectónicos está el zigurat escalonado de Aqar Quf, el cual se alza aún cerca de Bagdad, en Dur Kurigalzu, la capital kassita fundada en el siglo XV a. C.

Las muestras artísticas más importantes del período kassita son sus numerosas estelas, llamadas *kudurru*, que se hallan actualmente en distintos museos —el Louvre, el British Museum, el Museo de Bagdad, etcétera—.

Estos *kudurru* tienen la forma de los cantos rodados que se hallan esparcidos por las tierras altas del Kurdistán, de donde procedían los kassitas. Frecuentemente se les considera como mojones que garantizaban los derechos de propiedad (King, 1912). Contenau, sin embargo, declara que «son auténticas escrituras, documentos, que jamás eran colocados en los campos... sino en los templos bajo la custodia de los dioses» (1931, II, pág. 896). También son algunas veces escrituras de donación de propiedad. Sus inscripciones catalogan los deberes y derechos del propietario: bendiciones para los que siguen las normas, maldiciones para los que las quebrantan. Para aumentar su eficacia se añadían símbolos de los dioses y, más raramente, la escena familiar de un personaje haciendo una ofrenda a un dios en-

66. Centauro alado de un kudurru. *Tomado de Boll.*

67. Kudurru: *Cerca de un zigurat surgen símbolos astrales representando deidades kassitas. El dragón representa a Nabu, dios de la sabiduría; el doble relámpago a Adad, y el escorpión a la diosa Isara. El cetro termina en una cabeza quimérica; hacia 1500 a. C.*

68. Kudurru *de Ur. Coronado por el planeta Venus, la luna y el sol. Este mojón está dominado por la expresión demoníaca de los símbolos astrales de las deidades kassitas; hacia 1500 a.C.*

tronizado. La cantidad de símbolos, más que representaciones, es nueva, y se explica por el limitado espacio disponible. Pero es muy difícil que ésta sea la razón. Ni antes ni después hubo en Mesopotamia conjuntos de símbolos de las deidades astrales tan fantásticos y fascinantes. Dichos símbolos poseen la fantasía quimérica del interior asiático, que más tarde apareció en el estilo animalista del Luristán.

Desde hace mucho tiempo se sabe que en uno de los *kudurru* del British Museum se halla representado un centauro. Esta figura itifálica alada tiene dos cabezas y dos colas y está disparando una flecha con un arco (Boll, 1903, pág. 189). Un centauro similar aparece en el templo de Hator en Denderah, donde, en la época romana, fueron representadas las doce constelaciones del zodíaco (pág. 191). El centauro representa aquí a Sagitario. El centauro de la oscura historia de los kassitas estaba acompañado por un escorpión, el signo adyacente del zodíaco. Esta extraña semejanza entre representaciones separadas por un milenio parece guardar alguna relación, aunque no podemos demostrarlo, con el desarrollo de la astrología en Mesopotamia (pág. 182). Las representaciones egipcias de las constelaciones, alrededor del mismo período del *kudurru*, en las tumbas de Senmut o Seti I, no tenían nada que ver con los signos del zodíaco.

Una atmósfera extraña, demoníaca, emana de estas piedras y de sus símbolos. En una de ellas la inscripción cuneiforme, comprimida en la parte inferior de la piedra, está dominada por un grupo de símbolos que representan una mezcla de viejas deidades sumerias con otras introducidas por los kassitas. En la parte superior está la trinidad sumeria: la estrella Venus, Inanna; la luna creciente, Nannar, y el sol, Anu. Debajo de las deidades hay una fila de templos coronados por símbolos de los dioses kassitas.

En un *kudurru* de Ur que se encuentra en el Museo de Bagdad, un grupo de símbolos astrales surge cerca de un zigurat: un dragón que representa a Nabu, dios de la sabiduría; un doble relámpago que representa a Adad, dios del rayo y de la lluvia benéfica; y en la parte superior, la diosa-escorpión Ishara y una especie de cetro que termina en un animal con hocico alargado.

El *kudurru* kassita con sus excitables símbolos demoníacos era un reflejo retrospectivo desde los dioses antropomorfos hasta el símbolo. Es la expresión de una mentalidad primitiva, muy distante de la de los cultivados habitantes de Mesopotamia.

La humanización del curso del sol en Egipto

El principio por el cual el universo egipcio llegó a ser antropomórfico fue el mismo que en Sumer, pero se llevó a la práctica muy diferentemente. En su aplicación influyó la conciencia óptica de los egipcios así como su inclinación mitopoyética.

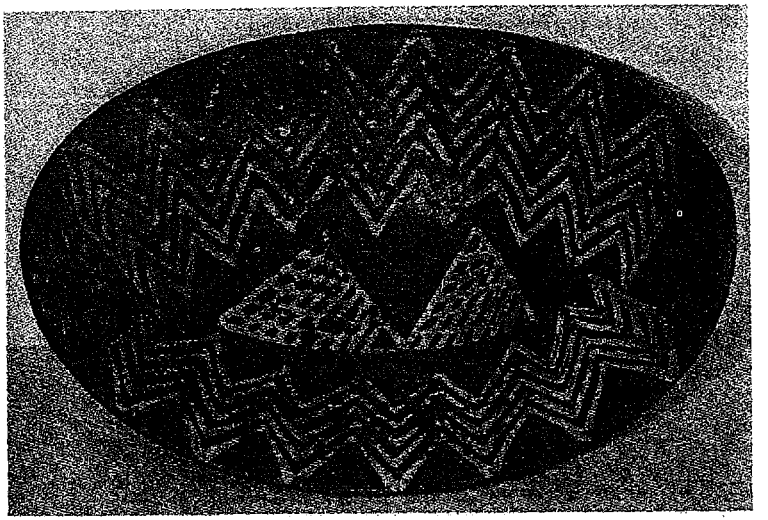
Es verdad que los dioses mesopotámicos tenían familias e historia. Pero sus vidas, en comparación con las de las deidades egipcias, eran estáticas. En Egipto una imagen le pisaba los talones a otra. Aunque, efectivamente, la dramatización mitopoyética de las imágenes no se desarrolló plenamente hasta el Imperio Nuevo, con sus grandes dotes narrativas, las raíces se remontan muy atrás. Fue el cur-

so del sol, el ciclo de las veinticuatro horas, lo que siempre reavivó la imaginación.

Aun antes del nacimiento de los dioses se había anunciado la unión con el cosmos. Un disco de cerámica predinástico del museo de El Cairo reproduce en forma abstracta el curso del sol del este al oeste. A ambos extremos de este cuenco de forma ovalada, dos círculos con rayos indican la posición del sol en el este y en el oeste. En el centro se hallan la Montaña del Este y la Montaña del Oeste, en forma de triángulos isósceles. Unas líneas en zigzag interrumpidas por los dos soles indican el océano primigenio circundante. El paso a través del cielo y la distinción entre el amanecer y el ocaso son ya vistos individualmente. En este plato amratiense se desarrolla una escena que será animada por el culto del sol, mitopoyético y antropomórfico.

Entre los muchos sistemas teológicos de Egipto, ninguno fue más popular ni experimentó más elaboración artística que el de Heliópolis. Esta ciudad había sido un influyente centro religioso aun antes de la fundación del reino, y mantuvo sus mágicos poderes de atracción hasta la época griega. Ninguna parte de su sistema teológico provocó tantas representaciones pictóricas como la concepción cosmológica. Arraigada en el culto del sol, dicha concepción estaba basada en el ciclo diario de veinticuatro horas, el cambio continuo del día a la noche y de la salida a la puesta del sol.

El sol era transportado en dos barcos, un barco del día y un barco de la noche. Mientras el barco del día cruzaba el océano del cielo, el barco de la noche atravesaba el mundo inferior, el océano primigenio. El cielo nocturno, cuando la luna sustituye al sol, desempeñaba un papel mucho menos destacado, del mismo modo



69. Disco oval amratiense: Representación abstracta de la órbita del sol durante el día y la noche. Dos triángulos isósceles indican las Montañas del Este y del Oeste, y líneas blancas en zigzag los océanos del cielo y del infierno. Período amratiense.

que la luna en Egipto tenía mucha menos importancia que en Mesopotamia, orientada hacia la noche. En Egipto la luna estaba representada por el dios Thot, que era mucho más renombrado como inventor de la escritura y como dios de la sabiduría que como dios de la luna, su función secundaria.

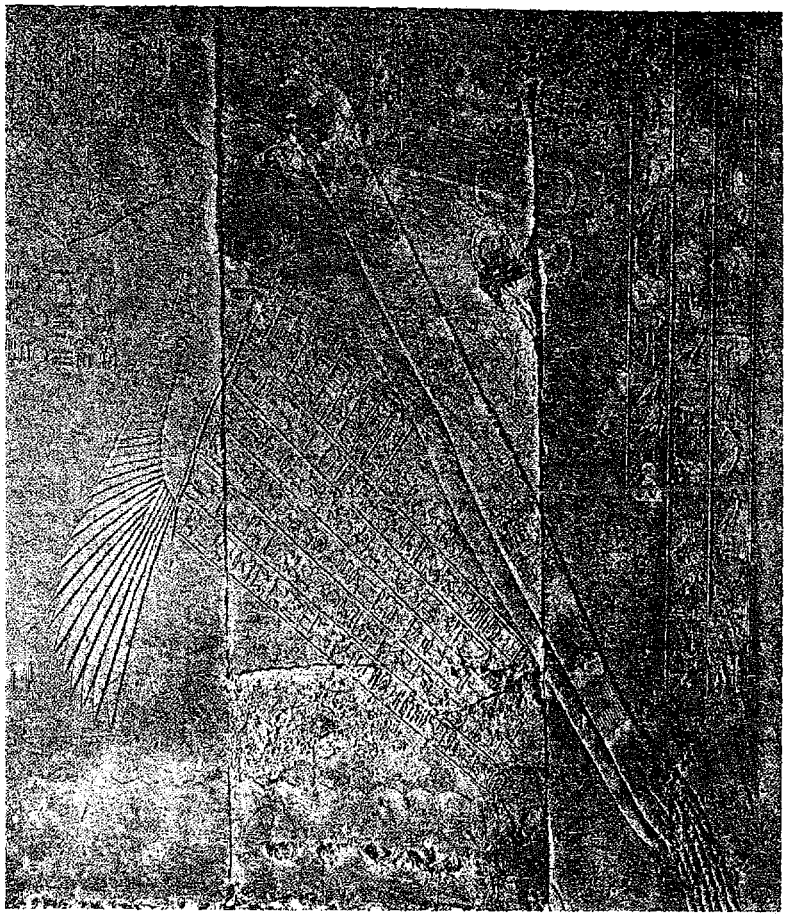
No conocemos ninguna representación más dramática del curso de los cuerpos astrales a través de la bóveda celeste y de sus avatares nocturnos a través del mundo inferior. Esta representación dio origen a variantes siempre nuevas, a imágenes siempre nuevas de cómo el sol desaparece por el oeste y vuelve a nacer, y de lo que ocurre de hora en hora en ambos barcos solares. Los múltiples significados y las transformaciones polimorfas del dios solar Ra y sus acompañantes tienen aquí su más completa expresión.

La invención teológica de los nueve dioses de Heliópolis (la Enéada), con la incorporación simultánea de animales, fue un golpe maestro de la imaginación sacerdotal, tan grande en su campo como la imaginación arquitectónica de la era de las pirámides. A la cabeza de la Enéada estaba el dios solar Ra, cuyos hijos eran Shu, dios del aire, y su mujer Tefnut. Geb, el dios terrestre, y Nut, la diosa del cielo, nacieron de esta unión; sus hijos, a su vez, eran Osiris y Set, y las diosas Isis y Neftis.

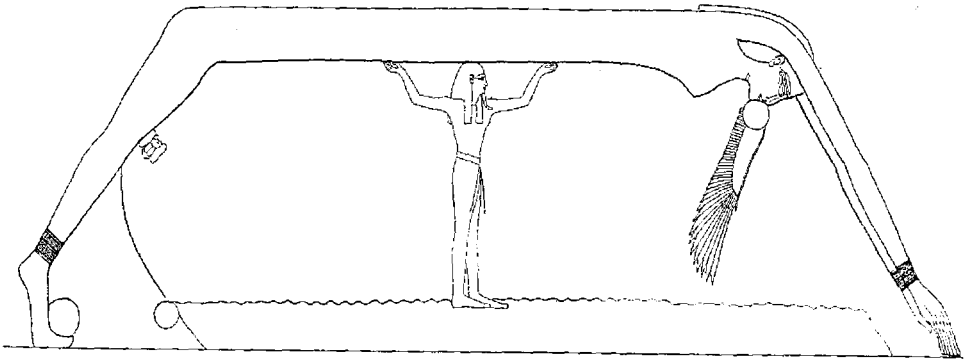
En una u otra forma, las distintas relaciones familiares de la Enéada estaban entretejidas en el escenario cosmológico. La violenta separación de la tierra y el cielo pertenece a los mitos de la humanidad. En Egipto esta separación llegó a estar altamente antropomorfizada. La separación del cielo y la tierra se repite continuamente, siendo causada por Shu, que alza los brazos para sostener a su hija Nut, diosa del cielo, apartándola del marido y hermano gemelo de ésta, Geb, dios de la tierra, de manera que la pareja estuviera separada para siempre.

Esta momentánea situación acrobática fue convertida, con el encanto egipcio, en eterna continuidad. La diosa Nut es una mujer graciosa y esbelta a pesar de su alargado cuerpo que sugiere la idea egipcia del cielo como un enorme plato. Los cuatro pilares que sostienen el cielo son las manos y los pies extendidos de la diosa, que tocaban la tierra con las puntas de sus largos dedos. En otra versión, el cielo es representado como el cuerpo de la vaca cósmica, Methyr o Hator, cuyas cuatro patas constituyen los cuatro postes del cielo.

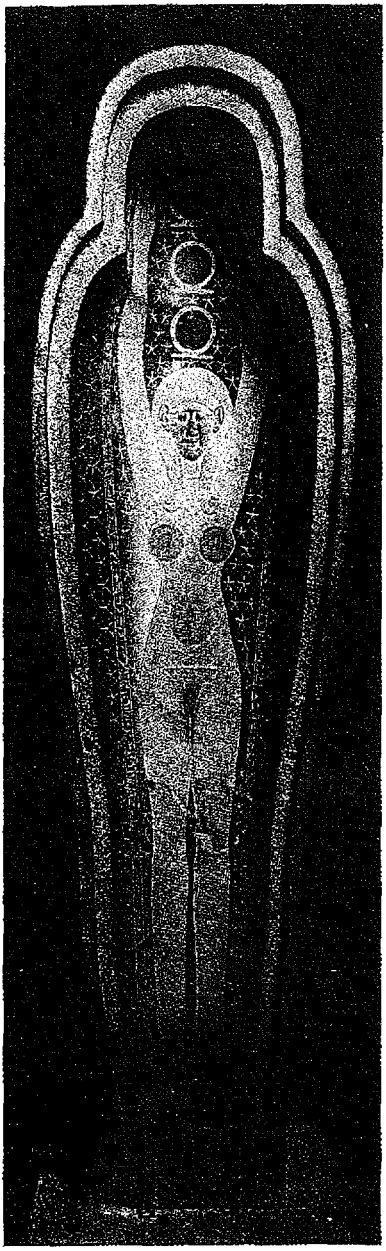
Una de las más bellas representaciones de Nut cubre el techo del enorme cenotafio de Seti I en su templo funerario de Abydos. La distorsión de las proporciones del cuerpo de Nut, que no se ajustan de ningún modo al canon egipcio, no destruyen el encanto de esta figura. La diosa es a la vez tan delicada y tan tremenda como el curso del mundo. En su cuerpo centellean las estrellas. «Al lado de la boca de Nut está representado el disco solar, aparentemente con las alas plegadas» (Frankfort, 1933a, pág. 73). Representa al dios solar Ra, y la inscripción reza: «La majestad de este dios penetra la boca de la diosa en el Otro Mundo. El Otro Mundo se abre cuando Ra navega por él. Las estrellas entran detrás de Ra... y se apresuran a ocupar su sitio... En la mitad izquierda de la pintura se ve el sol tres veces: una vez en el suelo, otra vez en el pie de Nut, aparentemente todavía dentro de la tierra, y finalmente como un escarabajo que recorre el muslo de Nut» (págs. 73-74). Nut se traga el sol todas las tardes y le hace nacer cada mañana. Eternamente entre su boca y su vulva se experimenta una diaria renovación de la



70. Nut, diosa del cielo, tragándose el alado sol poniente, cuyo renacimiento matutino está señalado por otro disco alado a los pies de la diosa. Detalle del relieve de la Figura 71. XIX Dinastía.



71. Nut, diosa del cielo: El dios del aire, Shu, separa a su hija Nut de su hijo y marido de ésta, Geb, dios de la tierra, indicado aquí solamente por una línea ondulada. Relieve del cenotafio de Seti I en Abydos. XIX Dinastía. Dibujo de una fotografía tomada por Calverley.



72. Nut, diosa del cielo: Nut se inclina sobre los muertos como se inclina sobre la tierra. Estrellas de cinco puntas bordean su cuerpo y sobre su cabeza está el triple símbolo del eterno retorno. Pintura en la cara interior de la tapa de un sarcófago. Período Tardío.

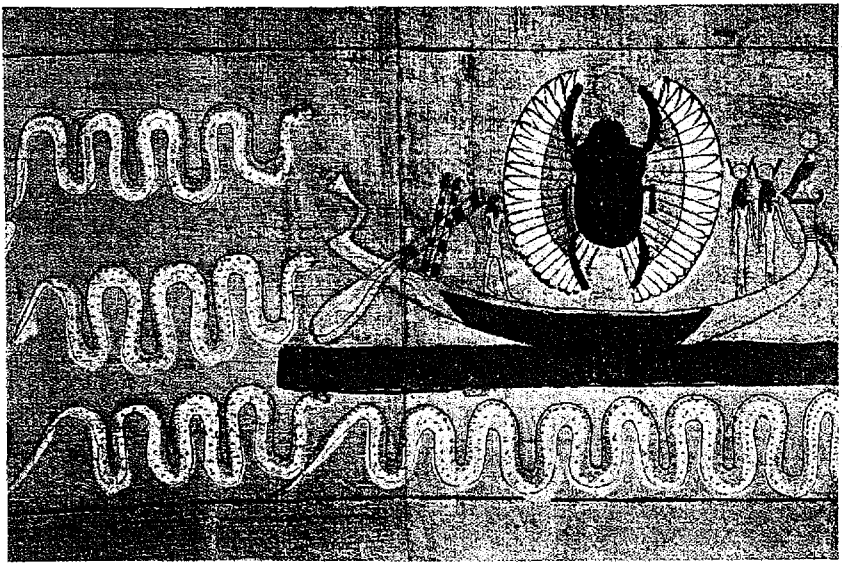
vida: «La majestad de esta deidad emerge de la parte posterior de la diosa» (página 74).

En el período último se popularizó la función de Nut. Su poder regenerador se puso entonces al servicio de los simples mortales. Nut se convirtió en diosa de la muerte. En el interior de las tapas de sarcófagos del período saíta se alarga la arqueada y esbelta figura de la diosa, protegiendo y otorgando vida a cada cuerpo muerto sobre el que se inclina.

La relación entre Nut y el curso del sol, aunque la mejor conocida, es solamente una interpretación de su papel. También podía convertirse repentinamente en Hator, la cual avanza desde la Montaña del Oeste, en forma de vaca, para recibir a los astros.

En una tumba tebana de la XVIII Dinastía, una diosa acéfala y con los pechos salientes recibe al sol en sus brazos abiertos. ¿Es Nut o es, como mantienen otros, la diosa-escorpión Selkis, menos claramente definida, surgiendo de la Montaña del Oeste? (Jéquier, 1946, págs. 240-241). En esta figura acéfala, con los pezones ennegrecidos, nosotros vemos una continuación de las representaciones primevas.

El curso del sol nunca dejó de excitar el lado mitopoyético del carácter egipcio. Sethe ha reunido muchas de esas imágenes (1928). En su raíz se halla la creencia de que el sol es la fuente de toda vida. La aparición de versiones siempre nuevas del viaje del sol y de su nacimiento es un signo de cuánto fascinaba a los



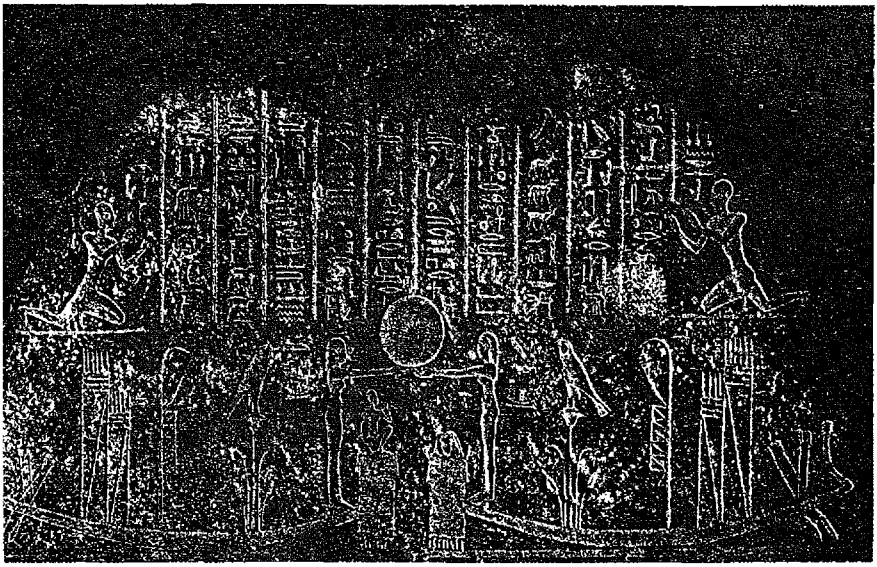
73. El Khepri alado en la barca solar. El barco sagrado sobre el agua. En la proa hay un halcón coronado por un disco y dos figuras de Hator. En la popa, un Horus-dios se halla cerca del timón. Papiro de Nesi-Khonsu B. XXI Dinastía. Según Piankoff.

egipcios la eterna repetición de cambio y permanencia, de viaje y retorno. Aquí encontramos un fenómeno paralelo a las procesiones itinerantes de las estatuas de los dioses de un templo a otro. Esta idea se halla también reflejada en la organización arquitectónica de los grandes templos, así como en los antiguos conjuntos piramidales, con su templo del valle, su camino elevado, su recinto mortuorio y la pirámide misma, desde la cual la escalera celeste conducía al rey difunto hacia el sol. Un eterno vagar.

En la tapa del sarcófago de granito gris del sacerdote Taho, de la XXVI Dinastía (período saíta), el traslado del sol desde su barco nocturno hasta su barco diurno está representado muy delicadamente. Hay dos diosas, una en cada proa, con los brazos extendidos horizontalmente, y la gran bola ingrávida del sol rueda de una mano abierta a la otra. La longitud de los brazos está intencionadamente exagerada.

No era necesario que el sol naciera de Nut cada día. El barco del sol podía, en lugar de ello, ser elevado del mundo subterráneo por Nun, dios del océano primigenio (Jéquier, 1946, fig. 21).

El nacimiento del sol también podía consumarse mediante símbolos. En el Papiro de Leiden el sol es alzado hasta el cielo por dos brazos humanos que salen del *ankh*, el signo de la vida, el cual surge a su vez del *djed*, el símbolo de la duración eterna. Isis y Neftis, la primera de las cuales pertenece al día y la segunda a la



74. Traslado del sol desde el barco nocturno (derecha) hasta el barco diurno (izquierda): La bola del sol, como un globo ingrávido, roza apenas los brazos extendidos de las diosas situadas en las proas. El dios Horus, fuertemente grabado, domina ambos barcos. Sarcófago del sacerdote Taho. XXVI Dinastía.

noche, se arrodillan en tierra, en adoración, mientras que a ambos lados unos monos con cabeza de perro saludan al sol naciente.

El sol toma diferentes formas en las distintas horas. Por la mañana aparece como Khepri, el escarabajo, al mediodía como un halcón con el disco solar rodeado por el úreo, y por la noche como un carnero.

El disco solar puede aparecer también en forma humana, generalmente con cabeza de carnero, en el centro del barco solar, tripulado a ambos lados por dioses que son las «incansables» estrellas circumpolares.

La órbita del sol rara vez ha penetrado en la conciencia del hombre tan profundamente como en el valle del Nilo, con su orientación norte-sur. A través de las vastas extensiones del desierto el sol brillaba con absoluto dominio, lo cual proporcionó un estímulo para una imaginación infatigable que trasladó la realidad a la esfera religiosa mítica. El viaje diario del sol se convirtió en una constante batalla entre la luz y la oscuridad, entre las fuerzas del bien y del mal, las cuales continuamente fueron experimentando transformaciones antropomórficas.

Sobre la estructura de las mitologías egipcias y griega

El contraste directo que ofrecen las mitologías griega y egipcia arroja más luz sobre la actitud egipcia hacia las deidades antropomorfas.

La mitología griega se centra en las relaciones humanas, la tragedia humana y el destino humano. Las experiencias humanas individuales quedan incorporadas en las formas creadas por los griegos: en la escultura la figura humana adoptó una tridimensionalidad totalmente desconocida hasta entonces. Aunque los dioses del panteón griego hacen referencia al simbolismo cósmico —Apolo, Deméter, Dionisos—, este aspecto permaneció en un último plano.

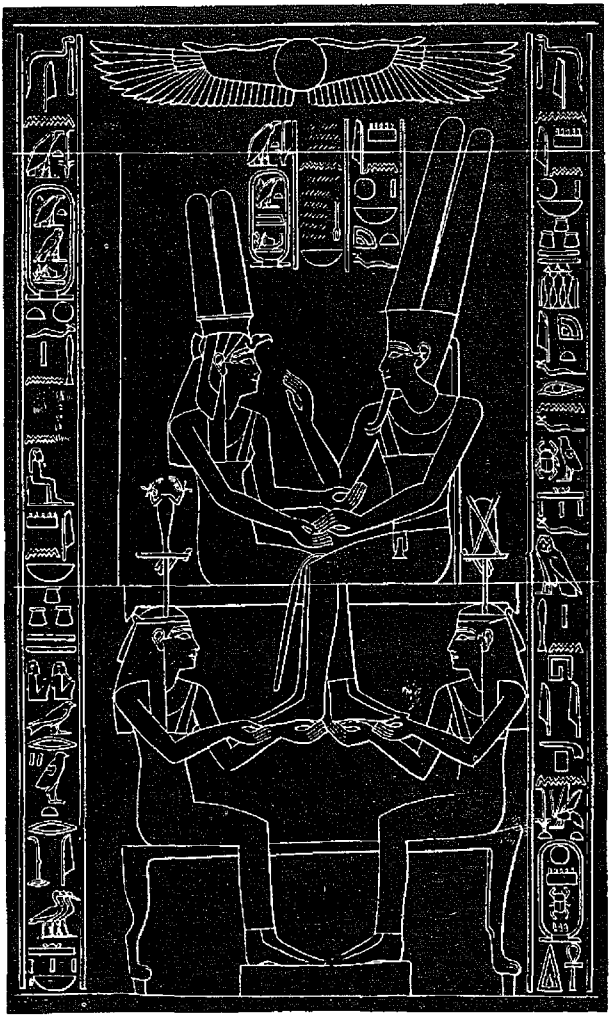
Un relieve de la Sala de los Nacimientos del templo de Luxor representa el origen divino de Amenofis III. Dicho relieve muestra al dios Amón encontrándose con la madre de Amenofis; están sentados juntos sobre el jeroglífico que significa «cielo». Sus pies descansan ingrávidos sobre las manos de dos diosas, Selkis, la diosa-escorpión, y Neit, la diosa de las flechas. «Selkis está estrechamente relacionada con Neit, y ambas diosas son sirvientas que asisten al nacimiento del divino niño y cuidan de él» (Roscher, IV, pág. 652). Neit no es aquí la diosa de la guerra, sino «la gran madre de dios, Amaunet, que aparece en la prehistoria... [y] creó la semilla de los dioses y los hombres» (Bonnet, 1952, pág. 515). La concepción y el nacimiento están simbolizados simultáneamente. Todo expresa una jubilosa fiesta.

Muy diferente es el caso de Alcmena y Zeus-Anfitrión, una sola aventura erótica en la que el dios tomó la forma de Anfitrión para lograr sus fines, y Alcmena se sintió culpable tan pronto como se dio cuenta de lo ocurrido. En el caso de Amenofis III lo representado es un proceso de fertilidad ritual que se repetía con cada rey, puesto que se suponía que todos los reyes egipcios eran directamente concebidos por el dios.

Las relaciones íntimas de Zeus son consecuencia del erotismo individual. Desde la época griega en adelante, el erotismo sustituyó al simbolismo de la fertili-

dad. De ahí la exageración de las experiencias eróticas individuales. Una y otra vez esto conduce a la tragedia humana o —como en la *Ilíada*— a alterar el destino de pueblos enteros.

En la esfera egipcia, la unicidad del mundo en forma de simbolismo cósmico fue de extrema importancia. La tragedia y los destinos de los individuos contaban poco. Los tiempos del individualismo no habían amanecido todavía. Cuando el



75. Amón y la reina: Para simbolizar el acto de teogamia, las manos se encuentran y los pies se cruzan. Debajo se hallan sentadas las diosas Selkis y Neit, quienes cuidarán y protegerán al niño Amenofis III. De un relieve de la XVIII Dinastía en la Sala de los Nacimientos del templo de Luxor. Dibujo de Schwaller de Lubicz.

tema surgía era en relación con la posibilidad de proyectar la memoria en el otro mundo. Esto ocurrió en el Imperio Nuevo con la reina Hatsepsut, de tendencia independiente, y con el rey Akenatón, revolucionario religioso, quien derribó el panteón de dioses e instaló en su lugar a Atón, disco del sol, como única divinidad suprema.

Uno de los pocos episodios trágicos en la historia de los dioses egipcios fue el desmembramiento de Osiris por su hermano Set. Después de la batalla entre Horus y Set, el asunto se resolvió satisfactoriamente para todos mediante una reorganización de las leyes cósmicas.

No es accidental que sea de fuentes clásicas tardías (Plutarco) de donde procede la información que poseemos del papel sacrificial desempeñado por Isis, la mujer de Osiris, y de la complicada secuencia de festín, muerte, desmembramiento y recomposición del cuerpo de Osiris, descrita hasta el más pequeño detalle.

La mitología egipcia no entra en los asuntos del destino individual, sino que trata de los poderes cósmicos cuyo interminable fluir sumerge y somete a los hombres. En lugar de interesarse por el destino de los individuos con sus diferencias de personalidad, la mitología egipcia se ocupa de diferencias sutiles en los acontecimientos cósmicos, lo que raramente se observa en otras culturas.

Interdependencia del hombre y los cuerpos astrales

La idea de una relación entre los cuerpos astrales y los destinos humanos forma parte de un concepto universal según el cual el cosmos no contiene nada fundamentalmente muerto u hostil.

Pronto la precisa observación de las estrellas y de sus movimientos refleja el anhelo de esclarecer la interdependencia de los astros y la tierra, de los astros y el hombre. La relación entre el sol y las estaciones del año era manifiesta; la relación entre la luna y la tierra, la luna y el crecimiento era más misteriosa. Totalmente intangible era la relación con constelaciones más distantes, tales como las estrellas circumpolares, las cuales apuntan siempre hacia el polo norte y nunca se hunden bajo el horizonte: los egipcios las llamaron las «incansables».

La necesidad de relación fue sentida de manera diferente en Egipto que en Mesopotamia. Ambos países utilizaron las observaciones de las estrellas para establecer las estaciones del año, para orientar sus construcciones y para otros varios propósitos prácticos. Pero luego sus caminos divergieron.

En Mesopotamia el conocimiento científico y la predicción del destino estaban inextricablemente unidos. En el sueño, frecuentemente referido, de la gran figura del período primitivo, Gudea de Lagash, la diosa Nisibis se le apareció no solamente como diosa de la inteligencia, de la sabiduría, de las matemáticas y de la escritura; también «llevaba la tableta de la buena estrella»: en otras palabras, era simultáneamente diosa de la astrología (Dhorme, 1949, pág. 283). «Para los sumerios y los acadios el cielo era, en efecto, un gran mapa en el cual estaba inscrito su

destino. Llamaban a las constelaciones 'la escritura del cielo' o 'la escritura del firmamento'» (pág. 282).

La gran complejidad del sistema que abarcaba en Mesopotamia las relaciones entre los astros y los acontecimientos terrestres no ha sido explorada. Hasta qué punto la tradición resultante estaba basada en la experiencia, en el pensamiento mítico o en la pura superstición es una cuestión compleja que hoy queda revoloteando en el aire, aunque exige ser dilucidada, lo mismo que los símbolos mesopotámicos, cuya investigación también se ha descuidado. Ya no basta con barrerlos debajo de la alfombra con la lógica cartesiana.

Los egipcios persiguieron una finalidad diferente de la de Mesopotamia. Cuando dibujaban las estrellas en una cámara sepulcral, lo hacían simplemente para informar al difunto de los caminos de los cuerpos astrales y guiarlo así en su eterno vagar.

La relación entre el hombre y las estrellas en las primeras altas civilizaciones era, pues, fundamentalmente diferente de la nuestra, que incluye un conocimiento mucho mayor de nuevos mundos astronómicos, de sus distancias y sus temperaturas. El concepto de infinidad no ha estado nunca tan enérgicamente grabado en la mente de los hombres. Toda la estructura del conocimiento actual supone el rechazo de toda relación mística entre los acontecimientos cósmicos y los terrestres.

Hoy, no obstante, perduran fuera de contexto muchas observaciones de los tiempos primitivos, entre ellas la creencia de que existe una relación entre las fases de la luna y la época idónea para sembrar semillas o criar animales. Es probablemente imposible saber hasta dónde se remontan estas ideas y otras similares, efectivamente muy deformadas. Dichas ideas fluyen desde los tiempos en que existía aún una creencia indiscutida en la interdependencia del destino del hombre y el cosmos.

La imaginación mitopoyética egipcia estuvo inspirada por el día y la mesopotámica por la noche. Hasta el final de la era de las pirámides la experiencia fundamental en Egipto fue la radiante luz del día y el sol; en el País de los Dos Ríos lo fueron el cielo nocturno estrellado y la luna. Esta diferencia rigió el pensamiento de las dos civilizaciones.

Los egipcios basaban su calendario en el año solar de 360 días, y Mesopotamia en el año lunar de 345 días. En Mesopotamia, «el mes empezaba al atardecer cuando la luna nueva creciente volvía a ser visible por primera vez después de la puesta del sol. El día sumerio-babilónico también empezaba al atardecer» (Mercer, 1957, pág. 110). En Egipto, el comienzo del año estaba relacionado con la primera aparición de la estrella Sothis (o Sirio) al amanecer.

La experiencia del lado nocturno de la vida y el sentimiento de estar completamente a merced del destino impregnó la existencia mesopotámica. Más tarde, los griegos asumieron la idea de destino, sin caer en el profundo pesimismo ya revelado en las deprimentes aventuras de Gilgamés, hacia 2600 a. C. Este interés por el destino estaba estrechamente relacionado con el deseo de comprender por adelantado la voluntad de los dioses. Las estrellas se identificaban con las deidades, influyendo en todos los acontecimientos y conduciendo así el destino de los hombres. Todo dependía de que el iniciado fuera capaz de deducir las decisiones

de los dioses a partir de los movimientos de las estrellas. No se ha demostrado claramente cuándo surgió la creencia en las estrellas, pero debió estar estrechamente relacionada con la antropomorfización del universo y, por consiguiente, debió encontrar su forma poco antes de los tiempos históricos o al comienzo de los mismos: «En los tiempos sumerio-babilónicos se reunieron colecciones de augurios astrológicos... ya en la época de Sargón» *(ibíd.,* pág. 82).

La situación en Egipto era completamente distinta. La disposición egipcia era como la corriente del Nilo, tranquila y matemáticamente calculable, en completo contraste con el comportamiento siempre imprevisible del Éufrates y el Tigris, y de las lluvias catastróficas de Mesopotamia. Estas diferencias regionales y estructurales quedaron expresadas en las diferencias entre ciertas deidades. Dioses como Enlil, creador, dios de la tormenta y ejecutor del destino a la vez, o Adad, dios del relámpago, no tuvieron equivalente en Egipto.

Egipto, hasta donde sabemos hoy, no se refugió en la astrología. Ha habido intentos recientes de demostrar que el significado de las estrellas sólo empezó a destacar en la época helenística (Nilsson, 1943). Esto sería cierto por lo que se refiere a Egipto, donde el significado de las estrellas tuvo influencia por primera vez bajo los Tolomeos, a través de Asia Menor. En Mesopotamia, como hemos visto, fue todo muy distinto.

El conocimiento que los egipcios tenían de los astros y sus movimientos estaba basado en la observación, muy desarrollada. Utilizando los medios más primitivos fueron capaces de fijar la posición de la estrella polar, y a partir de ello establecer con asombrosa precisión el eje norte-sur de la pirámide de Keops. La observación de los astros sirvió también para determinar la posición de las piedras angulares de los templos, que tenía gran importancia. En esos puntos se enterraban ofrendas especiales, como se ha visto en Deir el-Bahari.

La aparición anual de la estrella fija Sothis se producía casi exactamente cuando comenzaba la crecida de las aguas del Nilo. Anualmente la estrella se hacía de nuevo visible por primera vez de madrugada, poco antes de la salida del sol. El año del Nilo y el año de Sothis se correspondían. Sothis y sus variaciones astronómicas desempeñaron un papel muy influyente en la historia egipcia (Scharff y Moortgat, 1950, págs. 32-37). Pero todas estas son observaciones científicas que no tienen nada que ver con los decretos astrológicos.

El techo astronómico de la tumba de Senmut

Los egipcios parecen haber sido muy proclives a vestir los conceptos abstractos con formas sensibles y un encanto poético. Tenemos pocas vías de acceso al cósmico mundo de ensueño del estrellado cielo nocturno que apareció por primera vez en las tapas de los sarcófagos del Imperio Medio. Pero de ellas ninguna es más intensa que el techo astronómico de la tumba de Senmut en Deir el-Bahari. Nos extenderemos sobre él, porque presenta la actitud de los egipcios hacia las estrellas más claramente que las escasas descripciones escritas. Este techo contiene una inimitable yuxtaposición de datos astronómicos precisos con imágenes poéticas de ensueño, tan delicadas como los relieves del templo de Hatsep-

sut que hay sobre él. No hay aquí indicio de problemas astrológicos. Lo representado es el cosmos mismo como eterno calendario, con la personificación de ciertos acontecimientos cósmicos.

El gran arquitecto Senmut tuvo la osadía de hacerse, para su uso particular, una especie de topera casi debajo del patio del templo, su obra maestra. Entonces sobrevino su caída y probablemente también la de su reina. La entrada a su tumba estuvo cubierta por los escombros, permaneciendo olvidada durante treinta y cuatro siglos hasta que fue descubierta de nuevo por H.E. Winlock, del Museo Metropolitano de Nueva York, en 1925-1927.

Más de cien escalones descienden hasta la cámara funeraria, horizontal y sumamente sencilla, con el retrato de Senmut dibujado a la entrada. El estado incompleto de la tumba es evidente por los toscos escalones del bajo túnel de acceso. Sólo en el techo de la cámara, plano y dividido en sectores, con sus configuraciones de estrellas grabadas, se alisó la superficie. Inmediatamente debajo se ve la fosa, negra y jamás utilizada. El proyecto era de la mayor sencillez, y la intensa concentración de la representación cósmica en un espacio tan compacto, junto con el trágico acontecimiento que dio lugar a que la tumba quedara inacabada, produce una de las impresiones más conmovedoras acerca del destino egipcio.

Los dibujos quedaron hechos sólo en blanco y negro, pero por la finura de sus líneas y la espontaneidad de la ejecución superan las versiones coloreadas de los cielos estrellados existentes en los techos de la tumba de Seti I en el Valle de los Reyes, y en la capilla funeraria de su hijo Ramsés II (Rameseum de Tebas, hacia 1250 a. C.). Estas pinturas parecen contener ya un indicio de rigidez clásica.

Nos vemos introducidos en el cielo nocturno, entramos en el reino de las estrellas. Pero los dioses diurnos alternan en sus barcas en esta sociedad nocturna. A ellos se añaden las constelaciones y, con precisión matemática, la delineación del calendario eterno.

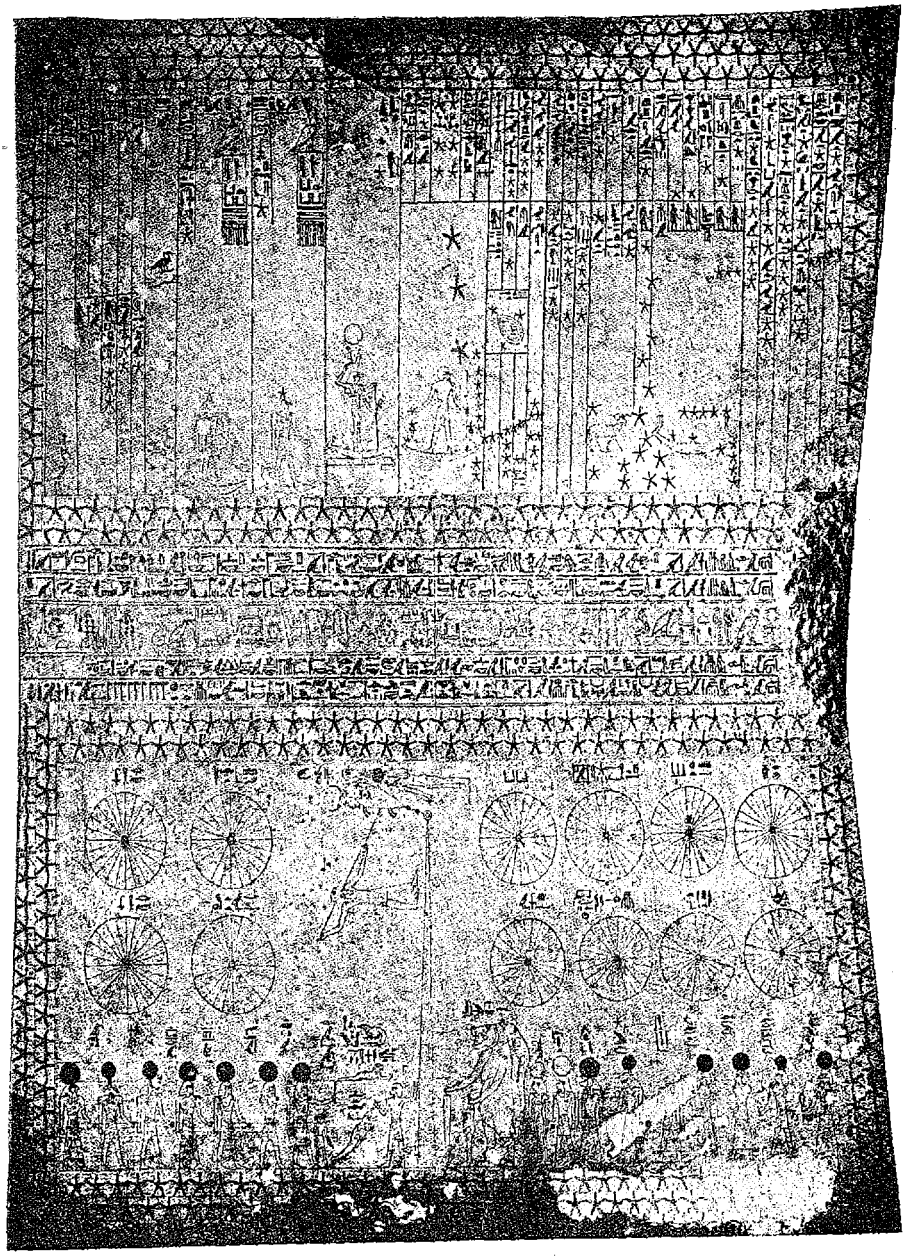
El techo astronómico de la cámara funeraria de Senmut mide aproximadamente tres por tres y medio metros, y está dividido en dos partes. Una banda de varias filas de estrellas de cinco puntas rodea cada una de las partes. En medio de la banda divisoria central está la cartela de la reina Hatsepsut: un indicio de que el dibujo se remonta al período en que el gran arquitecto todavía gozaba del favor de la reina como consejero privado suyo.

Inmediatamente saltan a la vista, en uno de los lados, doce círculos identificados como los doce meses: «Los círculos, subdivididos en 24 sectores, constituyen un aspecto nuevo del techo astronómico, siendo evidente su relación con la subdivisión del día en 24 horas» (Pogo, 1930, pág. 312).

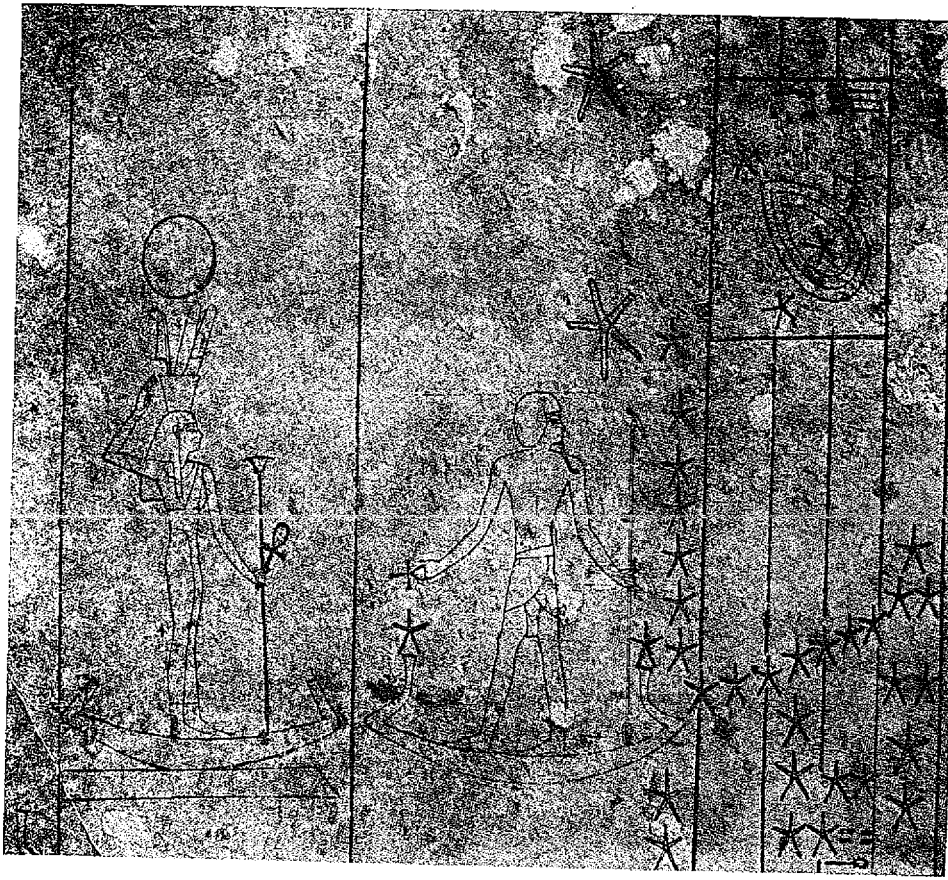
La parte sur del techo también tiene indicaciones temporales, esta vez en columnas. Las veintidós columnas cortas (leyendo de derecha a izquierda) contienen las principales estrellas pertenecientes a las treinta y seis «semanas» de diez días o decanes del año estelar (Bull, 1932, pág. 283). Cada semana estaba regida por la estrella del decán que aparece en su comienzo, y cada mes tenía tres «semanas».

Debajo de esta banda de columnas cortas, grupos de estrellas flotan con ritmo libre. No es difícil imaginar lo deslumbrante que habría sido este dosel de estrellas si hubiera sido acabado.

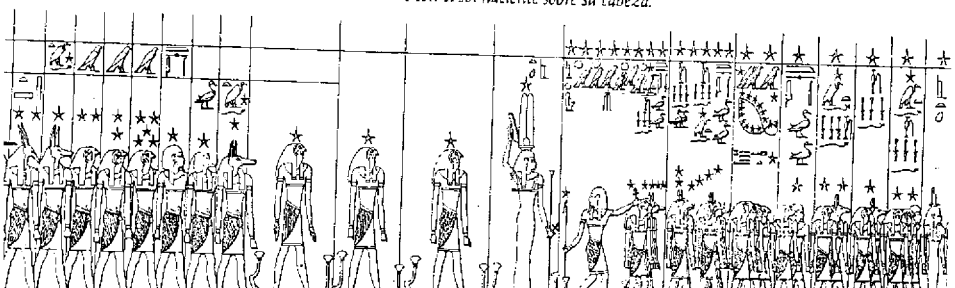
Una constelación de cuatro estrellas goza de una posición especial. La estrella



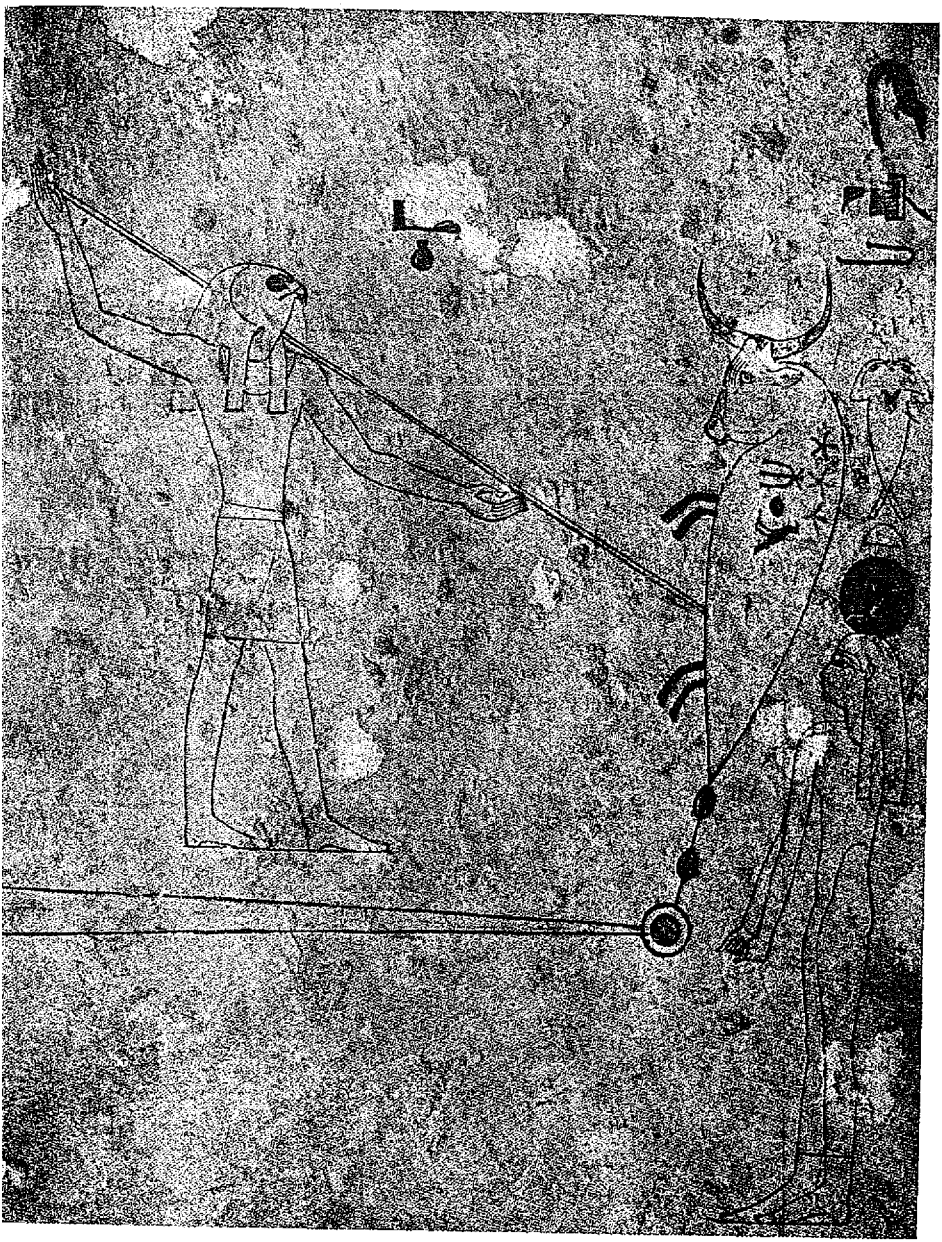
76. Techo astronómico de Senmut: Este techo inacabado de la cámara funeraria de Senmut (3 × 4 m) fue el primero de su clase. La parte superior muestra las treinta y seis semanas del año egipcio, y en la parte inferior doce círculos representan los doce meses. Ambas partes incluyen escenas de deidades representadas con suprema delicadeza. Dibujos sin pintar de Deir el-Bahari.



77. Techo de Senmut, parte sur: A la derecha, una constelación de cuatro estrellas, la central enmarcada por tres contornos en forma de cascarón de huevo, probablemente la constelación de Orión (Sah). Debajo, un dibujo de Sah, de pie en su barca, con una estrella en la proa y otra en la popa. Al lado, otra barca con la esbelta diosa Isis con el sol naciente sobre su cabeza.



78. Constelación en la tumba de Seti I: En la tumba de este rey de la dinastía de los ramésidas aparecen aproximadamente las mismas constelaciones que en la tumba de Senmut. La fila de deidades con cabeza de animal puede reconocerse aquí más fácilmente. Tomado de Lepsius.



79. Techo de Senmut, parte norte: Grupo simbólico de un dios con cabeza de halcón, probablemente Horus (la estrella matutina), dirigiendo una vara contra un toro de extraña forma con un rabo de tres estrellas. Esta constelación nocturna probablemente representa a Meskhit, nuestra Osa Mayor.

central está enmarcada por tres extrañas líneas. El dibujo indica «un huevo representado a la manera egipcia, con un triple contorno en posición oblicua... Recuerda el huevo del mundo, el origen de la tierra» (Röder, 1928, pág. 2). Esta constelación, Sah, fue durante mucho tiempo relacionada con Orión. Siguiendo uno de los textos más tardíos, S. Schott identifica la estrella central con sus tres acompañantes como Orión (Mercer, 1957, págs. 73-74).

Esta representación abstracta en forma de calendario entra seguidamente en la esfera antropomórfica. Al lado de la constelación de Orión, el mismo dios Sah es representado como un joven que entra en su barca, con la cabeza vuelta hacia atrás, un cetro en la mano izquierda y un largo signo de la vida en la derecha. Está acompañado por estrellas, dos de las cuales se han posado en la proa y en la popa de la barca.

En la barca vecina se halla una esbelta diosa con el brazo derecho levantado y con un cetro y un signo de la vida en la mano izquierda. Sobre su corona flota el sol naciente. Se trata de Isis, la figura más atractiva de todo el techo, que desempeña su papel dominante con encanto y autoridad a la vez. Era llamada reina de las estrellas del decán, a las que guía, porque se identifica con Sothis.

Aparte de estas formas puramente abstractas o antropomórficas, aparecen otras estrellas como filas de dioses híbridos, con figura humana y cabeza de animal. Así, existe un grupo simbólico, en el sector norte, de considerable atractivo artístico. Un dios con cabeza de halcón, probablemente Horus, que era identificado con la estrella matutina, dirige una larga vara (¿lanza?) contra un toro de extraña forma: cuerpo alargado que se estrecha hasta acabar en punta, patas fragmentarias y rabo recto al que van unidas tres estrellas redondas. Se trata de la constelación egipcia de Meskhit.

Algunos reconocen a Meskhit como «la conocida representación egipcia de la constelación Ursa Major» (Pogo, 1930, pág. 309). Otros ponen en duda la identificación de la constelación egipcia del toro Meskhit con nuestra Osa Mayor (Röder, 1928, pág. 4). Pero esto no tiene importancia en nuestro contexto.

A nosotros esta escena se nos presenta como un paralelo mitopoyético de la escena de Orión-Isis. Esta simboliza el nacimiento del nuevo año, y aquélla el nacimiento diario de la estrella matutina bajo la forma del dios Horus que apunta su lanza contra la constelación descendiente de la noche, Meskhit.

En relación con el toro acometido, situada detrás, está la diosa de la muerte, Selkis, que lleva sobre la cabeza el disco del sol poniente y encima de éste su símbolo, el escorpión. Selkis es frecuentemente identificada con Nut, diosa del cielo. Como ella, Selkis recibía el disco solar al atardecer; cuando esto ocurre es representada sin cabeza, con los brazos abiertos.

No se pueden pasar por alto las dos largas líneas que corren desde la última estrella redonda del rabo del toro a lo largo de toda la parte norte del techo. ¿Qué significan estas líneas? ¿Visuales de las estrellas para preparar el trazado en planta de una construcción? Han sido relacionadas con la ceremonia del tensado de las cuerdas, y Pogo (1930, pág. 310) hace referencia a un pasaje de Brugsch: «He cogido la estaca... Observo el movimiento de avance de las constelaciones. Mis ojos están fijos en la Osa Mayor... Determino las esquinas de tu templo» (Brugsch, 1833, pág. 85).

Pogo ha investigado el significado astronómico de este techo y reconstruido la posición de las estrellas en este período; cree que esta clase de representación está basada en una tradición que se remonta muy atrás.

El calendario perpetuo y la interacción de las constelaciones están ahí para servir de guía al difunto, no como predicciones del destino; le indican cómo los meses y los años, a través de los cuales puede continuar su vida eternamente, se suceden unos a otros. En Egipto los muertos no necesitaban hacerle preguntas al destino.

Cuarta parte:
Constancia y cambio en el modo de expresión

Las tendencias escultóricas en Egipto

Las grandes diferencias existentes entre el arte paleolítico y el arte de las grandes civilizaciones arcaicas saltan a la vista. Lo asombroso es que ciertos elementos constituyentes del arte primevo continúen viviendo. Esto no puede revelarse por una simple comparación de formas. La continuidad sólo se descubre cuando se investigan los métodos de representación. Entonces aparece que los métodos que consideramos como las cualidades más expresivas del arte prehistórico —la acentuación del contorno y el vaciado de los relieves— se prolongaron a través de toda la época egipcia, aunque el proceso cambió para adaptarse a un nuevo material: la superficie de piedra pulida en lugar de la rugosa superficie de la roca.

Los egipcios estuvieron vinculados a la piedra como los hombres primevos lo estuvieron a la roca. La relación con la piedra fue espontánea y natural en Egipto, aunque no en Sumer. Los bloques de piedra caliza para las pirámides sólo había que transportarlos a través del Nilo desde Tura. La esfinge de Gizeh nació de un solo contrafuerte de roca sobrante de la construcción de las pirámides. Las canteras de granito de Asuán, en el sur, eran inagotables.

La preferencia de los egipcios por la piedra se debía a su anhelo de duración eterna. Para su vida terrena, los humildes ladrillos —incluso los ladrillos sin cocer— bastaron hasta el período final.

La cerámica pintada del Egipto predinástico no resiste la comparación con la soberbia cerámica pintada de Irán y Mesopotamia. Pero, en contraste, los vasos de piedra del período predinástico y de la I Dinastía no han sido superados hasta hoy en cuanto a belleza y variedad de formas. Todas las dificultades para tallarlos en las piedras más duras, sienita, diorita y basalto, fueron superadas. Las dinastías posteriores volvieron a utilizarlos para colocarlos junto a sus difuntos. En el conjunto funerario de Zoser, en Saqqara, fueron hallados treinta mil jarrones, desde vasijas rechonchas y de gruesas paredes hasta las de máxima esbeltez, con paredes transparentes de puro finas. Jean-Philippe Lauer, que sacó a la luz el conjunto de Zoser, guardó estos vasos en cajones apilados, como en un almacén.

Las superficies planas como elemento constitutivo del arte

El hallazgo fundamental del arte egipcio fue el descubrimiento de las posibilidades de expresión inherentes a las superficies planas. Esto es válido para todas las artes: arquitectura, pintura y escultura. Todo estuvo sometido a las leyes de la superficie plana. Mediante el uso de este elemento abstracto, con la máxima moderación, se lograron las formas más altas de expresión. Las pirámides de la IV Dinastía y los obeliscos y pilonos del Imperio Nuevo ofrecen el descubrimiento de la superficie plana y sus posibilidades de expresión como una contribución eterna al desarrollo de la arquitectura.

La escultura de bulto redondo también cayó bajo el dominio de la superficie plana. Su tridimensionalidad fue reducida al máximo. Los miembros de las estatuas fueron resaltados mediante unos pocos planos verticales paralelos o superpuestos. La superficie y la proyección en la superficie constituyen también un as-

pecto de la pintura egipcia. El cuerpo y sus miembros no están pintados como aparecen en un momento determinado, sino más bien como son. Inmediatamente se hará evidente la decisiva influencia que el énfasis sobre la superficie tuvo en los relieves egipcios.

Los contornos

Representar un objeto dibujando su contorno es casi un gesto natural. Siempre que el hombre primitivo intentó dar salida a su impulso de representación se volvió hacia el contorno. El origen de este procedimiento se halla en el arte auriñaciense, cuando el hombre trazó el primer perfil de un animal en la arcilla de la caverna. Lo asombroso es la gran intensidad con que un simple contorno podía captar la naturaleza misma del animal.

Esto se hace evidente si se piensa en la utilización de los mismos procedimientos en las pinturas rupestres africanas. Existen grabados en paredes rupestres y en bloques sueltos de Africa del Norte y del Sahara (Graziosi, 1942). Estos grabados siguen los mismos principios prehistóricos de representación, pero permanecen vinculados a sus formas primitivas, faltándoles el grado de evolución y el poder expresivo del arte auriñaciense.

La representación de un objeto por su contorno ha persistido a través de todas las épocas, incluso la presente. La edad relativa de los grabados rupestres puede ser juzgada por la naturaleza de la pátina y la profundidad de las líneas. Los grabados rupestres fueron precursores de los relieves rehundidos que el arte egipcio desarrolló hasta la perfección. No lejos del valle del Nilo han sido hallados numerosos petroglifos (Massoulard, 1949, págs. 91-106), los más antiguos de los cuales se remontan al parecer al final de la Edad de Piedra o a la Edad del Cobre. Muchos fueron hallados más tarde en abrevaderos del desierto nubio (Frobenius, 1933, láms. 32-40). Su descubridor los describe como «pequeños e insignificantes comparados con las obras monumentales de Occidente» (pág. 54).

No es muy diferente el caso de otros muchos grabados rupestres. Cerca de la antigua Coptos, donde el Nilo dista sólo unos 180 km del mar Rojo, pasa un camino de caravanas procedente del desierto arábigo. Aquí, en 1932-1937, fueron halladas numerosas pinturas rupestres en el Wadi-Hammamat por H.A. Winkler (1938, I). Pero estas pinturas tampoco ilustran mucho sobre los comienzos de la evolución egipcia.

La evolución egipcia cobra interés inmediatamente antes de las Dinastías I y II y durante las mismas. Hay que referirse aquí a fuentes materiales existentes. Tal vez la vía de acceso más inmediata a la primera fase del despertar del arte egipcio venga dada por la colección de Petrie de fragmentos de las tumbas reales de la I Dinastía (1901). Estas tumbas fueron halladas en Abydos, en posiciones elevadas alrededor de la cima de una colina. No se ha decidido definitivamente si los reyes eran enterrados aquí o en otras tumbas descubiertas por Emery al norte de Saqqara.

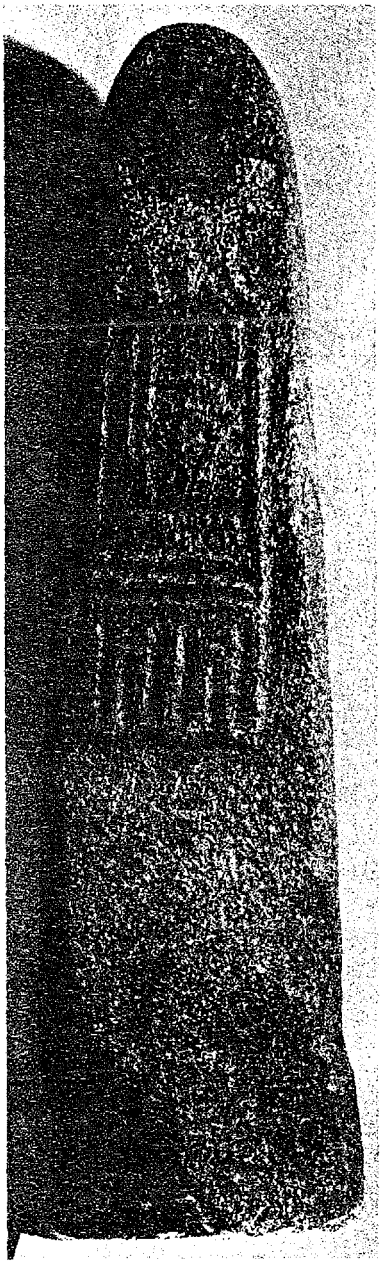
80. Relieve de la I Dinastía representando un pájaro: Como en la prehistoria, el contorno está formado por vaciado de la superficie de la piedra. Fragmento de estela de piedra caliza de Abydos.

81. Estela de la I Dinastía: La superficie rugosa, suavizada sólo en los huecos, refuerza los contornos. Estela de piedra caliza perteneciente a un funcionario real. Procedente de Abydos.

Relieves rehundidos de las primeras dinastías

Las inscripciones y dibujos hallados por Petrie en insignificantes fragmentos de vasijas de piedra, de cerámica, de alabastro, de marfil, de pizarra y de ébano tienen casi todos los contornos inseguros de los grabados de las épocas primitivas y de Africa del Norte. Pero todo ha cambiado, no sólo por los jeroglíficos sino por algo que más tarde acabará imponiéndose del todo: la orientación hacia la vertical y la horizontal y el consiguiente ángulo recto. Aun cuando las líneas son todavía algo inclinadas, el germen está aquí y la dirección se halla predeterminada. También nos informan estas piezas sobre la arquitectura de cañas de los santuarios de este período.

Los relieves en fragmentos de estelas muestran también la inseguridad de un período experimental, como por ejemplo el relieve de un pájaro en el fragmento de una estela de la I Dinastía que se encuentra en el Ashmolean Museum, hallado cerca del cenotafio del rey Udimu en el Cementerio Real tinita, junto a Abydos;



82. Estela de la II Dinastía: Toda la piedra está alisada y el relieve hábilmente grabado. Se trata de una primera etapa del pleno desarrollo del relieve rehundido. Estela de sienita del rey Peribsen, con los ángulos redondeados. Procedente de Abydos.

también otra estela de piedra caliza, perteneciente a un funcionario real, hallada en las proximidades del cenotafio del rey Djer (1901, pág. 33). Estos relieves conservan plenamente los métodos primevos. El contorno se origina a partir del vaciado de la piedra, exactamente como en los relieves laterales de las estatuas de Min procedentes de Coptos.

La comparación de estos relieves con una pequeña figurilla de Venus empotrada en la roca que fue recientemente descubierta en Les Eyzies (Dordoña) y que fue esculpida unos quince o veinte mil años antes, demuestra cómo el empleo de los mismos métodos conduce a resultados similares. Esto no implica verdaderamente una relación directa, sino que hace referencia a un hecho natural. Así como el niño, en unos pocos años, experimenta el largo desarrollo anterior de la humanidad, así los nuevos avances restablecen en breve tiempo etapas anteriores de la experiencia humana. Esto es lo que ocurrió en el arte de las primeras dinastías.

Entre los pocos monumentos de Abydos que quedan hay dos estelas del rey Peribsen, de 1,50 metros aproximadamente, halladas cerca de su tumba. «Están talladas en sienita muy compacta y muy pulimentada» *(ibíd.)*. Tienen los ángulos redondeados. Petrie, que no dice mucho sobre el procedimiento empleado en la talla, subraya que tuvieron que ser fotografiadas de lado: «El mejor resultado se obtenía de lado, por los reflejos» *(ibíd.)*. Todos los fotógrafos de relieves primevos coinciden en que éstos solamente pueden ser captados utilizando la iluminación lateral *(lumière frisée)*.

Un eslabón más con la prehistoria se halla en las tres grandes estatuas de Min procedentes de Coptos, cuyas relaciones iconográficas con la prehistoria ya han sido descritas. Petrie, su descubridor, acentúa que los relieves hallados en los flancos fueron hechos «martillando el contorno en un ligero hueco alrededor de las figuras» (1896, pág. 7).

El relieve rehundido como captador de la luz

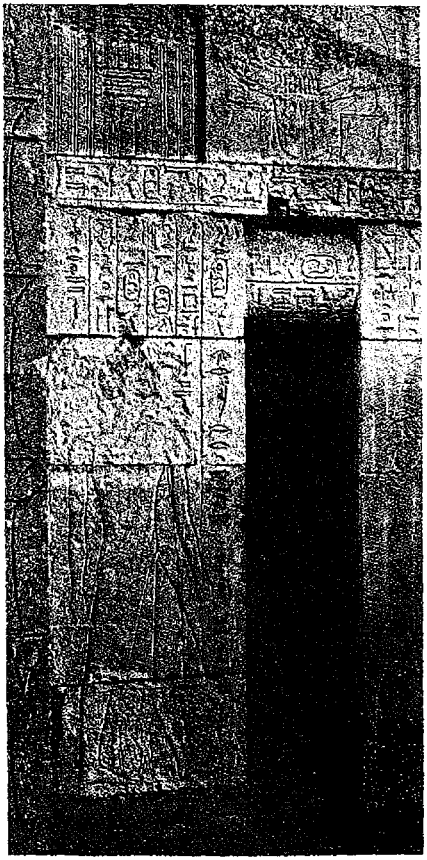
La característica común de los relieves primitivos y egipcios es que ambos aparecen rehundidos en la piedra. Ya se ha recalcado que los relieves primitivos nunca sobresalían fuera de la superficie de la roca circundante. Una y otra vez una parte de la roca permanece intacta, de manera que los animales parecen vivir dentro de la roca misma. Podría extenderse fácilmente una hoja de celofán sobre todo el relieve sin que la hoja resultara rota por ningún saliente del modelado. Esto se extiende incluso a los relieves prehistóricos de mayor fuerza plástica, tal el gran friso de caballos de Cap Blanc (Dordoña), donde los cuerpos de los animales están frecuentemente tallados a medio metro de profundidad en la pared de la roca.

De acuerdo con la situación de Egipto, totalmente diferente, el relieve rehundido cambia sin renunciar a su principio básico. Las paredes rocosas son sustituidas por superficies planas, pero estas paredes pulimentadas están tratadas de la misma manera que la estructura rugosa de la roca. Nunca perdieron su unidad interna.

Las superficies lisas que surgen con el comienzo de la arquitectura en piedra

debieron tener un gran atractivo para sus inventores. Las gigantescas paredes de las pirámides rechazan cualquier tratamiento plástico. Casi podría decirse que prohíben que sus superficies, lisas y pulimentadas, sean perturbadas por inscripciones o relieves.

El relieve aparece como una innovación fundamental en la conquista arquitectónica de la superficie a través del modo en que se presenta ahora su contorno. Este contorno se deriva todavía de un proceso de vaciado, pero que ya no toma la forma curva de una concha. En lugar de eso, se penetra inmediatamente en la superficie en ángulo de noventa grados. El ángulo recto forma un borde a manera de cuchilla, de gran significación plástica. El lado sobre el que da la luz resulta iluminado como por un tubo de luz de neón, mientras que el otro lado queda resaltado por una oscura línea de sombra. El efecto de los bordes afilados es tan intenso que los contornos son perfectamente visibles aun bajo la luz solar más deslumbrante. Incluso en el asfalto negro tan empleado en el último período, los contornos de la figura cobran vida por el lado iluminado por el sol y quedan acentuados por una profunda línea negra por el lado de la sombra.



83. Relieve rehundido del Imperio Antiguo: Los contornos marcadamente grabados en esta falsa puerta captan la luz incluso en la oscura cámara funeraria de Theta. Gizeh, IV Dinastía.

El relieve rehundido atrapa la luz. Aparece por primera vez en la semipenumbra de las cámaras funerarias del Imperio Antiguo. Como señala G. Jéquier, «el relieve rehundido, que da a las figuras una silueta sumamente fina, está formado en un lado por una línea de sombra, y en el otro lado por una estela de luz» (1924, pág. 83).

En el Imperio Medio, el relieve rehundido de aristas vivas estaba ya completamente desarrollado. Era utilizado a escala relativamente pequeña, como en un relieve de la XI Dinastía, en el sarcófago de piedra caliza de Kawit, que muestra el cuidado de una cabellera femenina. Los contornos de la cabeza, hombros y brazos están tallados más profundamente que los de la superficie del cuerpo, los detalles del mismo y las joyas. Los continuos cambios de luz y sombra, a los que tan sensible es el relieve rehundido, se hacen especialmente notables en los detalles.

El completo desarrollo del relieve rehundido egipcio tuvo lugar en las grandes construcciones funerarias del Imperio Nuevo, un milenio después de su primera aparición.

El relieve rehundido que recoge la luz y la sombra se empleó para cubrir los fuertes muros del templo con representaciones que viven dentro de la superficie

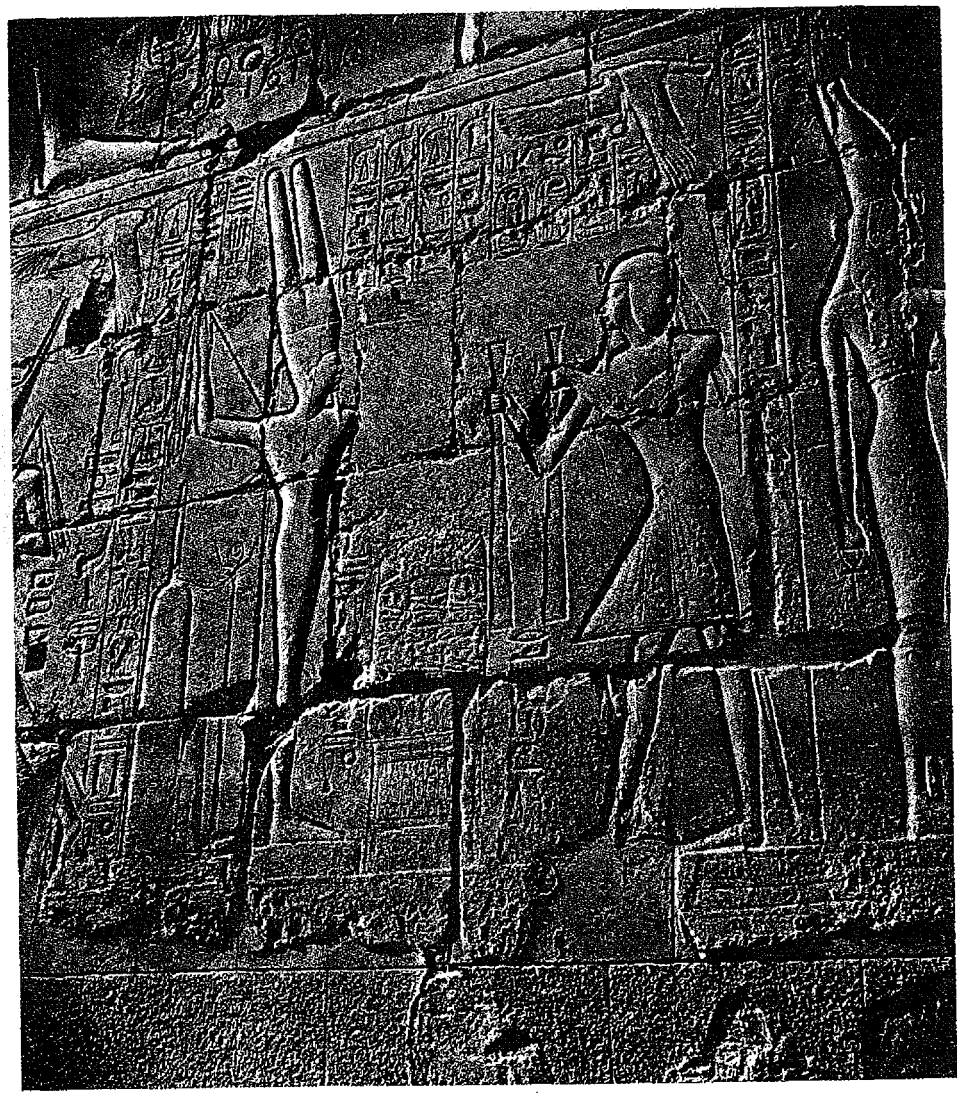
84. Relieve rehundido del Imperio Medio: Ahora la superficie está grabada en ángulo de noventa grados. El borde en arista viva da intensidad al contorno mediante la clara separación de luz y sombra. Detalle de un sarcófago de piedra caliza de Kawit, mostrando el arreglo del cabello de una dama. XI Dinastía.

parietal sin destruirla. Las superficies de los pilonos, de los obeliscos, e incluso de los fustes de las colosales columnas de las oscuras salas hipóstilas, se poblaron de relieves rehundidos, a veces de considerable profundidad, como en el jeroglífico «Hijo de Ra». Una escena del pilono VI de Karnak, en la cual Tutmosis III está representado dando muerte a unos prisioneros, muestra lo marcados que aparecen todavía los contornos a la brillante luz del sol.

Enormes relieves rehundidos se extendieron también a lo largo de las paredes de las oscuras salas hipóstilas, recordando sus primeros usos en las mastabas del Imperio Antiguo. Los detalles de una escena de Ramsés II haciendo una ofrenda al dios Min, de la pared sur de la gran sala hipóstila de Karnak, eran entonces visibles sólo en parte.

El relieve rehundido jamás fue abandonado en la arquitectura egipcia, ni siquiera en el último período y en la época romana. Durante el período saíta, que conoció el renacimiento de muchas de las diferentes épocas del arte egipcio, el relieve rehundido alcanzó su máxima delicadeza. En los sarcófagos saítas, tallados en un bloque macizo de piedra, las escenas que expresan las relaciones de los difuntos con la órbita del sol están grabadas como al aguafuerte en líneas tan finas

85. Relieve rehundido del Imperio Nuevo: Emblema del «Hijo de Ra» con cúpula (5 cm) conteniendo una esfera empotrada. Karnak.



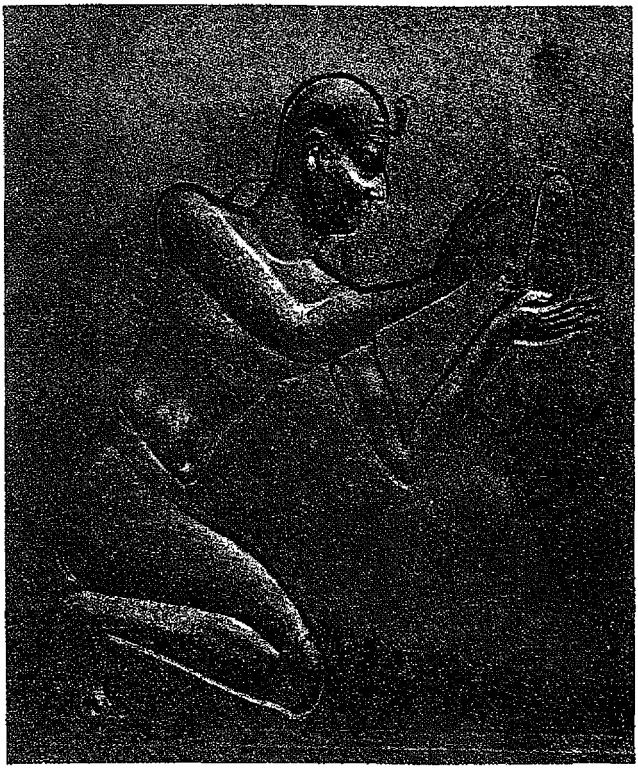
86. Relieve rehundido del Imperio Nuevo: En la oscura pared sur de la gran sala hipóstila de Karnak, el relieve rehundido es utilizado todavía para captar la luz. Relieve de Ramsés II haciendo una ofrenda al dios Min. XIX Dinastía.

como las de los grabados en cobre del siglo XVII. Un tratamiento tan sutil de una superficie de piedra dura no se ha intentado desde entonces.

En una piedra negra de la XXX Dinastía (siglo IV a. C.), el rey Nectanebo I, arrodillado, está grabado en relieve rehundido. Los reyes tolemaicos continuaron adornando las paredes de sus templos de Edfú y Filé de la misma manera; lo mismo hicieron los emperadores romanos en el templo de Denderah, cerca de Tebas, donde están representados bajo la forma de faraones egipcios.

En la historia posterior de la arquitectura el relieve rehundido es comparativamente muy poco empleado. Pero cabe recordar que —en forma más simple— ha sido utilizado en nuestra propia época por Le Corbusier en sus Unités d'Habitation de Marsella y Nantes. En las paredes exteriores, Le Corbusier ha tallado relieves que viven dentro de sus superficies de hormigón.

La cualidad permanente en todos los relieves egipcios fue la supremacía de la superficie plana. Para lograrlo, el relieve no siempre había de quedar hundido, sobre todo en obras de pequeña escala. Lo esencial era que fuera siempre delicado y



87. Relieve rehundido del Período Tardío: Hasta en una piedra negra de escasa luz, los contornos de este relieve están claramente marcados por la luz y la sombra. Relieve del rey Nectanebo I. XXX Dinastía.

que permaneciera dentro de la atmósfera de la que había surgido, apareciéndose solamente como si brillara a través de ella. Esto se mantuvo desde el principio, tanto en los relieves de Zoser de la III Dinastía, donde se muestra al Faraón en su morada del más allá, a gran profundidad por debajo de su pirámide, como en el relieve en madera de Hesiré en el Museo de El Cairo. Los portadores de ofrendas (bienes personificados) a Snefru, de comienzos de la IV Dinastía, en el templo de su pirámide escalonada en Dahshur, siguen la misma norma, como la sigue la mastaba de Ti en Saqqara, de la V Dinastía, donde los relieves de la superficie están doblemente acentuados por un segundo y delicado contorno. Del bajorrelieve emana una fresca delicadeza, como en los relieves del pabellón de Sesostris I en Karnak.

En el arte occidental europeo podía esperarse que un tal período de florecimiento primaveral progresase hacia lo escultórico y barroco. Nada de esto ocurrió en Egipto. Los relieves planos del Imperio Nuevo fueron, si cabe, más delicados y graciosos aún.

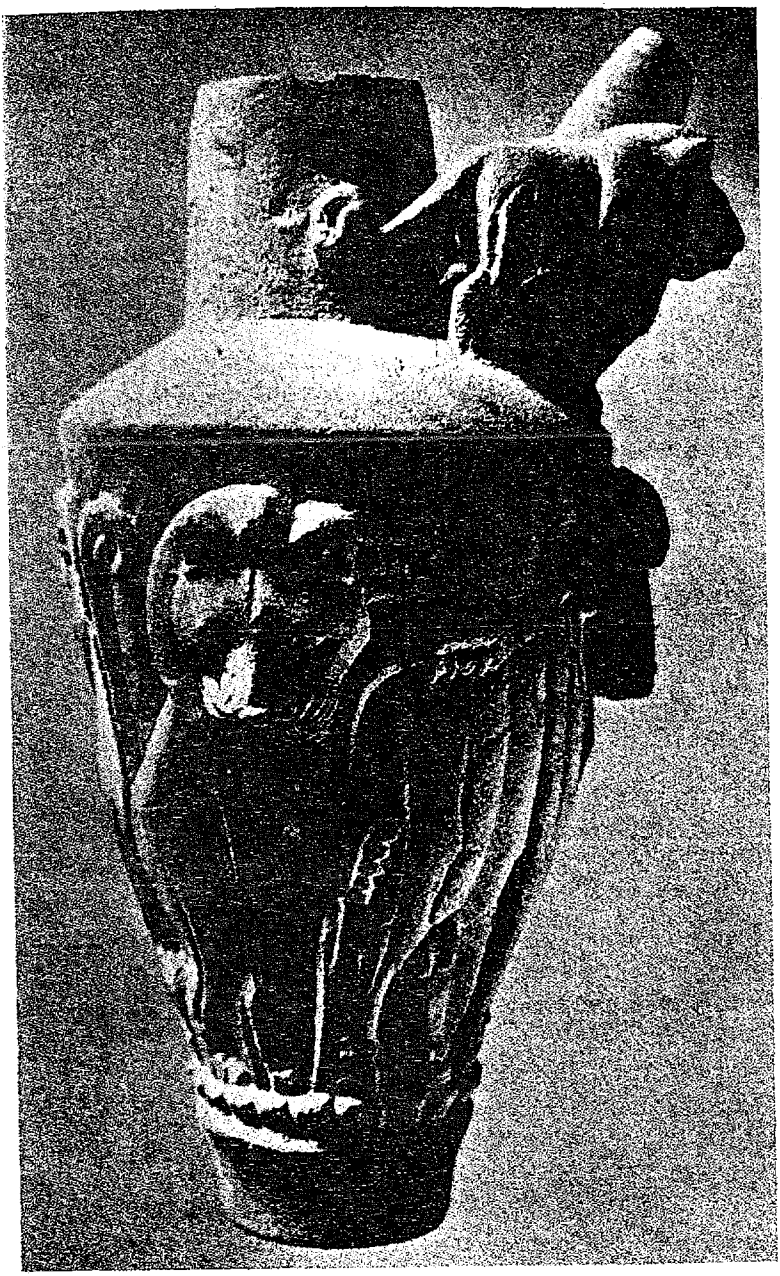
Los relieves del templo funerario de Hatsepsut en Deir el-Bahari presentan el encanto narrativo en el cual sobresalió el Imperio Nuevo, ya muestren la expedición de la reina al país de Punt, o a la vaca Hator avanzando majestuosamente.

De las diferentes clases de relieve —rehundido, bajo y alto—, sólo el delicado bajorrelieve y el relieve rehundido respetan la superficie plana, lo cual es especialmente cierto por lo que se refiere al relieve rehundido, que, como en la prehistoria, siempre se halla latente dentro de la piedra. Cuando, después de una larga evolución, los relieves rehundidos cubrieron las gigantescas superficies de las paredes de los templos egipcios, su interrelación con la piedra logró una completa unidad con la arquitectura.

Las tendencias escultóricas en Sumer

La actitud de la civilización sumeria hacia los relieves fue completamente diferente. Desde el comienzo los relieves sumerios sobresalieron de la superficie plana. La superficie quedó reducida a un telón negro delante del cual se desarrollaba la escena escultórica. Esto comenzó con la invención de los cilindros-sellos, cuyas interminables secuencias se desarrollan sobre un fondo neutro. Su energía plástica es asombrosa, incluso en impresiones de sellos del período Dinástico Temprano, donde el juego de luz y sombra permite que las figuras de hombres y animales sobresalgan de la superficie plana (Frankfort, 1954, lám. 39 C). Puede argüirse fácilmente que, dadas las pequeñas dimensiones de los cilindros-sellos, ninguna otra cosa era posible. Pero el modo en que fue desarrollada plásticamente la feliz invención del cilindro-sello tenía profundas raíces en la *Kunstwollen* (volición artística) sumeria.

La evolución sumeria estuvo basada en la plasticidad y en el contraste. Los primeros avances decisivos se produjeron en el período de Jemdet Nasr, que al-



88. Altorrelieve sumerio: León atacando a un toro, la totalidad de la cabeza sobresaliendo de la vasija ritual de piedra caliza amarilla. Período de Uruk III, comienzos del tercer milenio. Tomado de Heinrich.

89. Altorrelieve sumerio: El tremendo anhelo de tridimensionalidad queda expresado en el limitado volumen de esta vasija de piedra caliza de Uruk, en la cual dos héroes barbados (?) protegen a dos toros del ataque de un ave mítica (¿Imdugud?). Período de Uruk III.

gunos sitúan hacia el año 3000 y otros hacia el 2600 a. C. Su centro fue Uruk, y es conocido más exactamente como período de Uruk III. Su material fue la piedra. Produjo un original semblante femenino, un alto jarrón de alabastro y varias vasijas de piedra rituales. En una de éstas, de piedra caliza amarilla y que tiene veinte centímetros de altura, figura un león que parece menos preocupado por su violento ataque contra un toro sujeto entre sus garras que por sacar su voluminosa cabeza al vacío. Un león más pequeño, que mira atentamente hacia fuera junto al pico de esta vasija libatoria, parece totalmente ajeno al primero.

En la fragmentaria parte superior de un vaso de piedra caliza del período Protoliterario Tardío sumerio (Uruk III), el tumulto de la batalla entre varios seres aparece dentro de un espacio muy reducido: dos hombres barbados luchan con dos toros sobre cuyos lomos se posan unos míticos pájaros. Los pájaros y los «héroes» tienen un tamaño excesivo en comparación con los toros. El modo como uno de los hombres barbados lucha con ambos toros sugiere la acción de un guardián protector más que la de un atacante. ¿Es Imdugud, el gran ave de presa, quien ataca a los toros?

La vehemencia del altorrelieve escultórico está llevada aquí hasta el extremo. Entre el cuello de la vasija y los cuerpos de los hombres lanzados hacia fuera se produce un vacío, una separación del fondo, especialmente claro en la figura de la derecha.

Con esta primera aparición del tratamiento plenamente escultórico del cuerpo humano se intentó por todos los medios emancipar la figura de la superficie. Bajo una serie de supuestos completamente diferentes, esa tendencia fue llevada más lejos en el siglo V griego y en el arte helenístico.

En uno de los frisos del templo de Al'Ubaid aparecen combinados elementos fuertemente contrastantes. Las reses, alineadas una detrás de otra en forma de procesión, están hechas de nácar incrustado en un fondo de betún negro. Un cerco de cobre aumenta el efecto escultórico.

Lo que aquí aparece en germen está ya completamente desarrollado en un

90. Friso con incrustaciones sumerio: La serie de reses en incrustación de nácar contrasta fuertemente con el fondo de betún negro. Parte de un friso del templo de la diosa-madre Ninursag en Al'Ubaid. Período Dinástico Temprano.

gran panel de cobre que probablemente estuvo sobre la puerta del mismo templo. Dicho panel muestra a Imdugud, el águila con cabeza de leona, con dos ciervos. El relieve tiene una gran fuerza y las figuras son de bulto redondo en sus tres cuartas partes. La cabeza de leona del águila, las cornamentas de ambos ciervos y hasta las colas sobresalen muy por fuera del grueso marco. Unas figuras plásticas tan exuberantes hubieran sido inconcebibles en Egipto.

fig. 19

La escultura de bulto redondo

La escultura de bulto redondo tuvo en Mesopotamia unos comienzos semejantes a los de los relieves. También aquí se acusa el deseo de tridimensionalidad en las representaciones de animales y figuras humanas. Los objetos están modelados por todas sus caras, como la peana de ofrendas de la Primera Dinastía de Ur, del segundo milenio, con un carnero erguido entre hojas y flores muy espaciadas, que se encuentra en el British Museum (Frankfort, 1954, lám. 28), o las estatuillas de cobre representando sacerdotes, del Segundo período Dinástico Temprano, del altar del templo de Khafaji.

fig. 60

Un altorrelieve de cobre representando vacas tendidas, incorporado a la fachada del templo de Al'Ubaid, muestra una notable tendencia hacia la escultura tridimensional: la cabeza de una de las reses se proyecta hacia delante casi totalmente exenta.

fig. 91

Se cree que una fila de toros de cobre de considerable tamaño estaba situada delante de la fachada del mismo templo. Una sola figura da idea de su impresionante carácter. Pocas esculturas de este temprano período muestran tan a las claras la intensidad con que había llegado a expresarse el deseo de tridimensionalidad.

fig. 92

Una inusitada impresión de tensa vitalidad emana de esta figura de cobre, fuertemente oxidada. Pero el acento que da la oxidación es puramente fortuito. Lo que es cierto es la sensación de movimiento instantáneo: la cabeza vuelta hacia la derecha, el rabo ligeramente curvado, las pezuñas plantadas momentáneamente sobre el suelo, con las patas traseras ampliamente separadas y las delanteras más cerradas.

Todos los detalles están cuidadosamente tratados, desde la forma de las pezuñas hasta los pliegues de la piel sobre los ojos. La panza cae como una bolsa: se siente su carnosidad. Un dominio naturalista tan vívido habría sido imposible en el método egipcio de representación. Con una tridimensionalidad hasta ahora desconocida, este animal toma posesión del espacio que le rodea.

Cuando, en 1919, H.R. Hall y C.L. Woolley descubrieron el toro, éste estaba completamente aplastado. Los descubridores declaran: «El cuerpo fue primeramente tallado en madera, un simple tronco sin cabeza, ni patas, ni rabo; éstos fueron hechos aparte... Luego se le dio al núcleo una delgada capa de betún sobre la que se fijaron chapas de una fina lámina de cobre» (1927, pág. 84).

El gran impulso tridimensional de la primera mitad del tercer milenio nunca fue llevado más lejos ni en Mesopotamia ni en el Oriente Próximo. Habría que esperar a que Grecia llevara la escultura de bulto redondo a un desarrollo hasta entonces imprevisible.

El tratamiento fuertemente plástico de los relieves sumerios puede advertirse

en una tableta de Lagash, cuadrada y perforada, que Frankfort considera un «soporte para una maza» (1954, pág. 33). Dicha pieza representa a Dudu, sumo sacerdote de la época de Entemena. En la parte de arriba está Imdugud, el águila con cabeza de leona, con dos leones, a la izquierda un becerro semiarrodillado y a la derecha Dudu, vistiendo una falda y con la parte superior del cuerpo desnuda. Anchas bandas separan cada motivo de los demás, destruyendo efectivamente la superficie del fondo.

Esta propensión al modelado fuertemente plástico, que surgió en la primera parte del tercer milenio o poco después, se desvaneció posteriormente. Pero su principio —figuras escultóricas delante de un fondo neutro— nunca decaería, según puede comprobarse a través del arte del Oriente Próximo, desde la estela que muestra la victoria de Eannatum de Lagash sobre sus enemigos —la llamada Estela de los Buitres— y la estela de Ur-Nammu representando la construcción del zigurat de Ur hacia 2000 a. C., hasta los enormes relieves de los últimos reyes asirios del siglo VIII a. C. del palacio de Sargón II en Jorsabad.

91. Altorrelieve sumerio: La cabeza de una vaca sobresale enérgicamente de una plancha de cobre pegada a la pared del templo de Al'Ubaid. La verdadera escultura exenta está lograda y la relación del relieve con la pared ha dejado de existir. Período Dinástico Temprano, mediados del tercer milenio.

Aquí las figuras del rey y sus cortesanos están exageradas de tamaño y todo el relieve tiene proporciones desmesuradas (más de 3 metros de altura). Nada existe aparte de las figuras: la superficie del fondo ha quedado completamente absorbida (*ibíd.*, lám. 96). De dimensiones más modestas, pero emotivamente igual de insulsas son las largas series de figuras alineadas unas detrás de otras en las paredes de la escalinata del palacio de Darío y Jerjes en Persépolis, acabadas en el siglo V a. C., justamente antes de la decadencia del gran Imperio persa.

92. Estatua de cobre de un toro de pie: Tridimensionalidad muy desarrollada. Todos los detalles del cuerpo están mostrados con plena espontaneidad y vivacidad. 62 cm de altura. Del templo de Al'Ubaid, comienzos del período dinástico, hacia 2500 a.C.

La utilización del color

La viva frescura exhibida por los colores tanto en los tiempos primevos como en Egipto proviene del uso de los mismos materiales imperecederos: colores terrosos que dan tonos amarillos, marrones y rojizos. Entonces como ahora se utilizaba el ocre, cuyo pigmento rojizo parecía simbolizar la sangre y era por consiguiente desparramado sobre los muertos tanto en los tiempos auriñacienses como en el período predinástico egipcio.

El negro se obtenía de cierta clase de carbón, como en los tiempos prehistóricos, cuando era utilizado con el óxido de manganeso de las cavernas.

Con el descubrimiento del cobre y su oxidación entran nuevos tonos en la escala cromática. El azul intenso y, sobre todo, el verde malaquita ejercieron al principio un enorme atractivo. Mezclado con una sustancia fijadora, este último fue utilizado como cosmético para el adorno ritual con ocasión de los grandes festivales, y este uso persistió. Las nobles paletas cosméticas de la I Dinastía tienen en el centro una cúpula circular que servía para contener el polvo verde. Las paletas eran entregadas a los difuntos de manera que pudieran adornarse adecuadamente en ocasiones rituales, o, como la famosa paleta de Narmer, eran consagradas por el rey a un templo: en este caso a un santuario de Hieracómpolis, en el Alto Egipto.

El azul, que tanta luminosidad da a las pinturas y cuya intensidad nunca ha vuelto a ser conseguida, «estaba formado por un compuesto cristalino de sílice, cobre y calcio» (Lucas, 1948, pág. 392).

Estos colores, imperecederos y radiantes, y la ausencia de sombras expresaban plenamente el carácter optimista de los egipcios.

Aunque, particularmente en el Imperio Nuevo, los palacios y las casas particulares estaban pintados, como en Tell el-Amarna, el monumento funerario siempre fue y siempre siguió siendo, desde la edad de las pirámides en adelante, el verdadero campo de la pintura. Y esto fue así desde los comienzos de la III Dinastía (restos de pinturas en la capilla de Hesiré en Saqqara), durante los imperios Antiguo y Medio (pinturas de la mastaba de Atet en Meidum y las tumbas rupestres de Beni Hasan), hasta las pinturas de Hatsepsut en Deir el-Bahari, de mágica delicadeza, y las de las profundas tumbas rupestres de los ramésidas en el Valle de Los Reyes, cerca de Tebas.

Los métodos de representación prehistórico y egipcio

A la costumbre prehistórica de representar el cuerpo de un animal visto de lado, las patas y los cascos de frente, la cabeza de perfil, y los ojos nuevamente de frente, la llamó el abate Breuil *perspective tordue*. Este método de representación no implica una perspectiva torcida o distorsionada. No tiene nada que ver con la perspectiva. Significa la representación simultánea de un objeto de frente y de perfil con la finalidad de fijar su verdadero carácter de la forma más clara.

No sólo el arte egipcio y sumerio, sino todo el arte arcaico, incluido el primer arte griego, mantuvieron esta simultaneidad de representación mostrando, por ejemplo, la cabeza de perfil y los ojos de frente. Esto era consecuencia de la supremacía del nuevo concepto de orden. En lo sucesivo todo había de ser proyectado en el plano vertical u horizontal, desempeñando aquél el papel más importante.

Parte XI

La comparación de un raro relieve prehistórico con un famoso relieve egipcio puede dar una idea más aproximada de la continuidad y el cambio de los medios de representación de la figura humana.

Un relieve prehistórico: el hombre de Laussel

En el santuario de Laussel (Dordoña) fue hallado el relieve prehistórico de un hombre de pie (47 cm de altura), un poco por encima del nivel auriñaciense. Pertenece al período, comparativamente corto, que va desde el solutrense hasta el magdaleniense, durante el cual floreció la escultura prehistórica. Después, la evolución escultórica quedó interrumpida durante miles de años, hasta reaparecer con la mayor vehemencia en Sumer y Egipto.

La parte superior del cuerpo del hombre de Laussel está vuelta hacia la derecha, con el hombro izquierdo adelantado: una posición llamada la postura del boxeador (por contraste con la postura del luchador). La mano izquierda extendida existe aún en parte, y la mano derecha, levantada, está solamente indicada. Carece de importancia en este contexto que nos hallemos en presencia de un arquero o, como se supuso más tarde, de un lanzador de jabalina. La cabeza, muy deteriorada, está indicada de perfil, y la parte superior del cuerpo en un giro de tres cuartos. El lado derecho del pecho está ligeramente modelado, y la línea del tórax sugerida, así como el ombligo. Los dos surcos horizontales que atraviesan las caderas, marcando un cinturón, son muy manifiestos.

fig. 93

La parte inferior del cuerpo con la pierna derecha ligeramente adelantada, así como la cabeza, son mostradas de perfil. Esta figura masculina de estrechas caderas es notablemente esbelta, pero sus contornos están grabados con una firmeza y una sensibilidad que normalmente sólo se hallan en las representaciones de animales.

Tanto este relieve de los comienzos del período solutrense como un relieve egipcio muestran la llamada posición del boxeador: el cuerpo vuelto hacia la derecha y el hombro izquierdo adelantado. En ambos relieves la cabeza y las piernas están de perfil. El relieve egipcio también mantiene el cinturón y la desnudez que, en los rituales solemnes, se conservó frecuentemente de los primeros tiempos, como en la estatua de cobre de un sacerdote procedente del templo de Khafaji.

fig. 60

Un relieve egipcio: Hesiré (III Dinastía)

fig. 94

Diez milenios o más se extienden entre el relieve de Hesiré de la III Dinastía (altura de la figura, 54 cm), procedente de su tumba en Saqqara (hacia 2630 a. C.)

y el relieve del hombre prehistórico. La intensidad de este relieve en madera de uno de los altos funcionarios de la corte de Zoser señala la primera floración del arte egipcio. Se trata de la más bella de las cinco representaciones de Hesiré, de pie y sentado, que Mariette halló en los nichos de la galería interior de su tumba.

El modelado del contorno de la cabeza es robusto. El contorno de la parte superior del cuerpo está simplificado casi hasta la forma de un trapezoide. Los hombros, acentuados, están contemplados frontalmente, mientras que las caderas y las piernas, delgadas e inmaduras, en posición de marcha, están vistas de lado.

Se trata de la representación de un hombre cuyos rasgos todos revelan que en vida estuvo acostumbrado al mando. Todos los detalles de este panel de madera están tratados casi microscópicamente. Cada hebra de la peluca está claramente marcada. En su mano izquierda, Hesiré sujeta un bastón junto con objetos de escritura —el punzón con su caja, estuche de colores y tabla a la que va unido un tintero—dispuestos en el plano frontal. La mano derecha sostiene un cetro en posición horizontal.

Toda la postura está concentrada en un momento de acción, con la boca, la nariz, las cejas y la mandíbula tensos y prominentes. El hecho de que el ojo esté situado en posición frontal apenas se nota. A pesar de la expresión férrea, está ausente toda brutalidad. Los detalles, cuidadosamente elaborados, emanan una armonía y un encanto que forman parte del misterio de aquellos tiempos primitivos y que se hallan también en los relieves de la «residencia subterránea» de Zoser en su tumba de Saqqara.

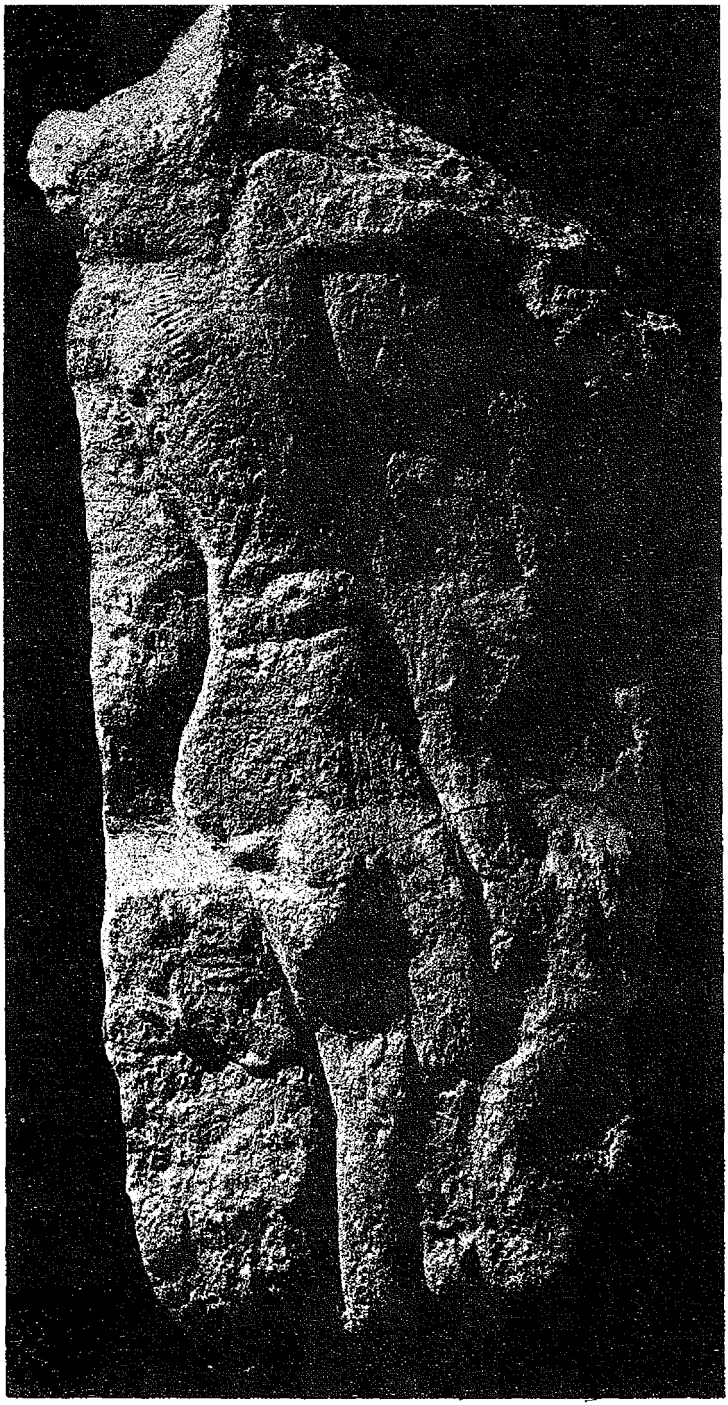
Los detalles del relieve de Hesiré se presentan con tal espontaneidad que hacen olvidar que todo estaba calculado y dispuesto hasta el último detalle. Con la cabeza de perfil, los hombros y la parte superior del cuerpo de frente, y las extremidades vistas de lado, el plano vertical se convierte en elemento constitutivo de la estructura del relieve. Todo parece girar alrededor del plano vertical. Las visiones frontal y lateral forman dos planos perpendiculares entre sí. Todo está referido a esta disposición.

El contraste entre el convencionalismo de este relieve y la libertad de dirección del hombre de Laussel estriba en la reducción a dos planos perpendiculares.

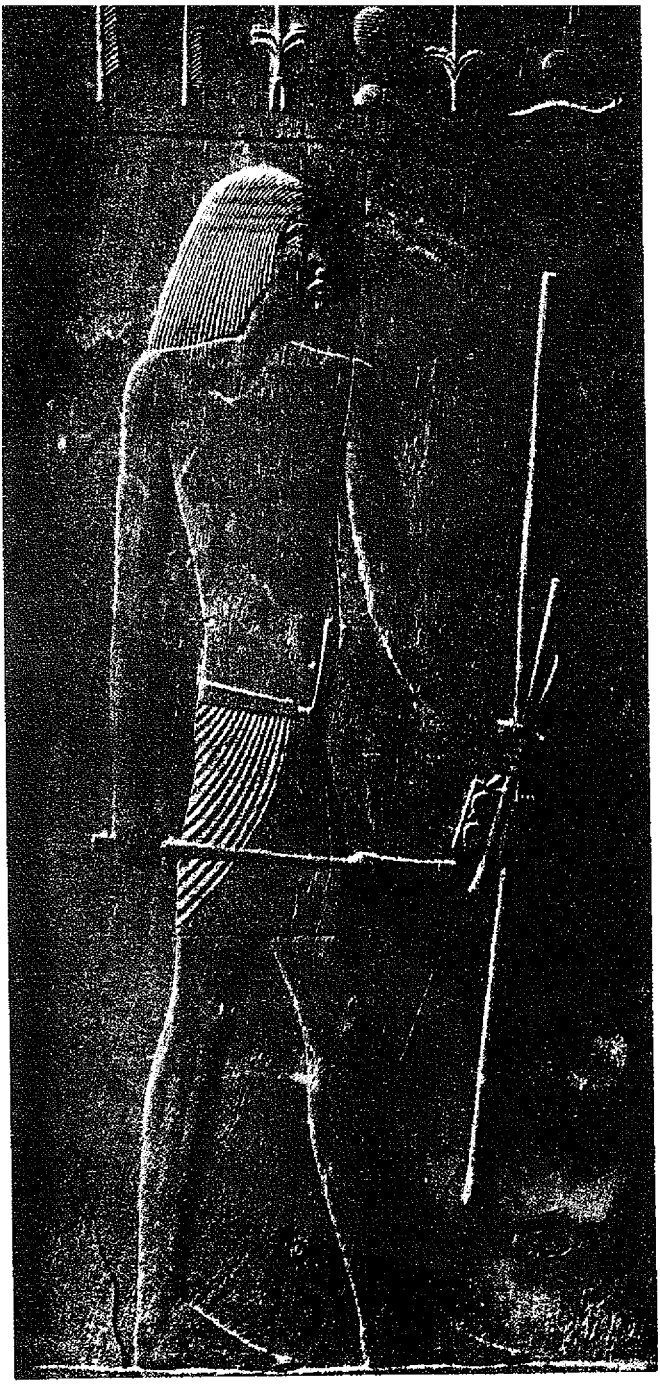
¿Cómo están proyectadas las diferentes parte del cuerpo en estos dos planos? Puede ser que las vistas lateral y frontal fueran consideradas de igual importancia, aunque la lateral era empleada más frecuentemente y se usaba siempre para las figuras alineadas en fila india que aparecen a través del arte egipcio. La libertad del artista egipcio le permitía elegir cuál detalle del cuerpo había de ser representado frontalmente y cuál otro de perfil, lo cual es ya evidente en la colocación del ojo de frente mientras que la cabeza está vista de perfil.

Aunque todos los detalles están cuidadosamente indicados, la representación escapa a la aprehensión inmediata. ¿Cómo están representados el pecho y la parte inferior del cuerpo? ¿De frente o de perfil? ¿Dónde está la línea fronteriza?

Estas preguntas se plantearon en 1887 cuando Adolf Erman advirtió —o, como puntualizó Heinrich Schäfer, «descubrió»— que el ombligo del relieve de Hesiré está trazado de lado. También la tetilla y el abultamiento del pecho son mostrados de perfil. Erman lo explica como sigue: «El cuerpo es presentado de la manera más confusa. Los hombros se ofrecen en visión frontal, mientras que la



93. Relieve prehistórico de un hombre de pie, procedente de Laussel (Dordoña). Altura: 47 cm.



94. Relieve de Hesiré, de la III Dinastía: Panel de madera (altura de la figura: 54 cm). De la tumba de este personaje en Saqqara.

cintura está de perfil, y el pecho y la parte inferior del cuerpo comparten ambas posiciones. Por lo que se refiere al pecho, por ejemplo, la parte más alejada está de frente, la más cercana de perfil, pudiéndose considerar la parte inferior del cuerpo como una perspectiva de tres cuartos, como vemos por la posición del ombligo» (trad. ing. de 1849, pág. 398).

Todo parecía estar de acuerdo con esta explicación, la cual se derivaba del enfoque ochocentista de la pintura. Pero en 1919, Schäfer declaró que esta interpretación «naturalista» era «imposible y engañosa» (pág. 170), puesto que a un artista del Imperio Antiguo jamás se le podía haber ocurrido que los distintos elementos con los que trabajaba necesitaran una mediación lógica.

La vista de tres cuartos significaría el traslado de nuestro punto de vista moderno al modo egipcio de ver las cosas, pero este punto de vista es incompatible con la mentalidad egipcia. «No existe un solo ejemplo definido en todo el período del Imperio Antiguo que muestre un cuerpo individual o parte de él —en este caso el vientre humano— en vista de tres cuartos» (pág. 172).

Schäfer se opone con toda razón a la idea de la posición en tres cuartos. Su paso siguiente, sin embargo, es incomprensible para nosotros, puesto que supone que en el relieve de Hesiré la vista de perfil del pecho es consecuencia de la posición frontal de los hombros. Schäfer encuentra apoyo para esto en el contorno del pecho con la tetilla y el ombligo desplazados lateralmente. El contorno de la izquierda es explicado como línea de la espalda (pág. 173).

Con ello se pone en cuestión todo el método de representación, y por consiguiente la totalidad del arte egipcio. ¿En qué principio se funda la separación de los dos planos, uno de los cuales tiene que ser perpendicular al otro? En este caso, ¿dónde se produce la división entre los hombros vistos de frente y el pecho visto de perfil? Todo lo demás está claro en el relieve de Hesiré, pero aquí el retrato se vuelve confuso de pronto. El salto repentino de un plano a otro en este punto es inconcebible, puesto que en el arte egipcio el claro giro del plano se halla siempre en las articulaciones.

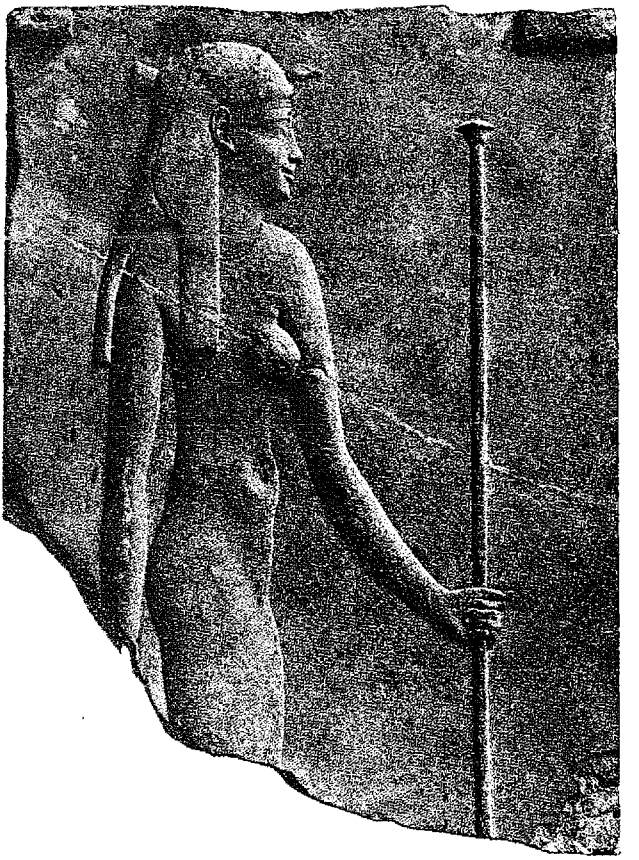
Sin embargo, cuando la cabeza es mostrada de lado, su parte más importante, el ojo, es mostrada frontalmente. Así, cuando el tronco es representado frontalmente, el pecho es mostrado de perfil. Esta representación simultánea de las vistas lateral y frontal, que en parte se remonta a los tiempos prehistóricos, se convirtió en regla general.

El lugar donde la visión frontal de la parte superior del cuerpo se une con la visión lateral de las partes inferiores y las piernas está situado en la línea fronteriza decisiva, justamente encima de la articulación de la cadera. El pecho está desplazado hacia un lado en ángulo de noventa grados.

La separación del cuerpo humano en sus partes y articulaciones naturales —cabeza; hombros y pecho (parte superior del cuerpo); pelvis y piernas (parte inferior del cuerpo)— se ajusta ya en esta obra a la secuencia que, una vez establecida, se repetirá continuamente en el arte egipcio: vistas lateral-frontal-lateral.

Durante tres milenios aproximadamente, hasta sus últimas obras en la época romana, los escultores egipcios nunca cambiaron este método de representación. Los relieves de cuerpos masculinos o femeninos eran siempre representados con un solo pecho, generalmente el izquierdo, como en el modelo de escultor que se

halla en el Metropolitan Museum of Art de Nueva York, donde una reina tolemaica del siglo II a. C. está representada en forma de diosa. En su propio suelo la larga tradición egipcia se reveló más fuerte que el nuevo impacto producido por la evolución griega.



95. Relieve tolemaico: La parte superior del cuerpo está representada frontalmente con un pecho de perfil. Este método de representación simultánea de las vistas frontal y lateral fue utilizado durante cerca de tres milenios. Modelo de escultor de una reina tolemaica. Siglo II a.C.

Quinta parte:
Los orígenes de la arquitectura monumental: Mesopotamia

Mesopotamia es la cuna de la arquitectura.

En los primitivos templos mesopotámicos puede observarse un curioso fenómeno que contrasta con la evolución posterior de las dos civilizaciones arcaicas. Se trata de la atención dedicada a la formación del espacio interior del santuario. Es como si nos situáramos en el origen de la evolución del espacio que se iniciará unos milenios después con el Panteón de Roma y que continúa todavía hoy: el modelado del espacio interior.

¿Cómo surgió esta primitiva tendencia hacia la construcción de un templo abriendo su espacio interior y dando amplio acceso a los fieles? ¿Y por qué quedó esto interrumpido bruscamente?

El contacto directo con la deidad llegó a su fin con la aparición de los primeros imperios. Un mediador todopoderoso se introdujo entonces entre los hombres y los dioses: el sacerdote-rey. El libre acceso a la deidad fue disminuyendo gradualmente. La imagen del dios fue colocada en una oscura cella a la que nadie tenía acceso excepto el mediador. Esta fase aparece en su forma más monumental en Egipto. La configuración del espacio interior había llegado a carecer de significado desde un punto de vista ritual y por consiguiente la arquitectura que se desarrolla a partir de la formación del espacio interior acabó desapareciendo.

Indicábamos antes que, en la prehistoria, un período escultórico pudo comenzar, desaparecer durante miles de años, aparecer de nuevo bajo condiciones sociales y culturales completamente diferentes, y después permanecer constantemente en primer plano. Algo parecido a esto ocurrió en los albores de la arquitectura.

En los primitivos recintos religiosos, verbigracia Eridu, Tepe Gaura, Al' Uqair, Tell Asmar, Uruk, el interior del templo estaba bien articulado. ¿Cómo pudo producirse esta anticipación de la evolución posterior en los comienzos de la arquitectura?

La base hay que buscarla en las relaciones entre el hombre y las fuerzas invisibles. En los tiempos prehistóricos los ritos más secretos tenían lugar en sitios ocultos, en las profundidades inaccesibles de la tierra. También allí se representaron los símbolos más sagrados.

Durante el gran período de transformación, cuando fueron apareciendo los primeros asentamientos humanos fijos, tuvo lugar un cambio gradual en las relaciones del hombre con los poderes invisibles. ¿Cómo se establecería contacto con esos poderes en la era de la agricultura? ¿Y qué forma se había de dar al lugar donde el hombre mantenía relaciones con ellos?

Los templos más antiguos proporcionan información sobre la época en que fueron edificados y la forma arquitectónica utilizada. El lugar de residencia del dios, su morada, fue erigido sobre el modelo de la vivienda humana.

Había muchos signos en la prehistoria de que el hombre era capaz de construirse una vivienda: un cobertizo de zarzo y barro contra una pared rocosa, o una choza construida de muy diversas maneras. Pero cuando, en la época neolítica, fueron realidad los establecimientos humanos más permanentes, los frágiles cobijos fueron siendo gradualmente sustituidos por viviendas sólidas. Estas viviendas podían alojar tanto a los vivos como a los muertos, así como, en un rincón, las figurillas femeninas o amuletos que prometían fertilidad. La vivienda era

todo en uno: la casa de los muertos, de los antepasados y de los serviciales y protectores espíritus familiares.

Cuando, en el quinto milenio, se construyó el primer pequeño santuario en Mesopotamia, quedó establecida la separación del universo de los espíritus de las residencias privadas de los hombres. Aunque este primer santuario, construido en Eridu, tenía todavía forma de casa, servía a toda la comunidad como centro de relación con las fuerzas invisibles circundantes, y su mesa de ofrendas y su altar proporcionaban la oportunidad de servirlas.

Así, en las primeras fases de la evolución de la arquitectura, el templo adoptó la forma de una vivienda humana en la cual se suponía que vivían las fuerzas invisibles y, más tarde, la deidad.

Según el plano de los templos sumerios está muy claro que en el primer período los fieles tenían acceso directo al altar y a todo el interior. El templo más antiguo contenía una mesa de ofrendas o altar. Sólo mucho más tarde, cuando se instalaron los dioses antropomorfos, fue colocada una imagen del dios en el extremo más alejado.

El modelo arquitectónico de los templos más primitivos fue la casa de vivienda de forma rectangular, recientemente desarrollada. A esta casa rectangular, que ha sido hasta nuestros días la forma corriente de vivienda, no se llegó sino después de siglos de experimentación con innumerables variantes.

La forma de la casa

No es este el lugar para entrar en los detalles de la evolución, complicada y todavía nada clara, de la vivienda humana, aun cuando las investigaciones de sus orígenes se van haciendo más precisas. El tema ya no corresponde solamente a los arqueólogos sino que ha sido asumido por grupos de especialistas en los campos de la climatología, de la botánica y zoología paleolíticas, de la domesticación de los animales, y de los usos del carbono 14 (Braidwood y Howe, 1960). De esta evolución de la vivienda humana, desde las estructuras prehistóricas hasta la casa con patio de Mesopotamia hacia el año 2000 a. C., sólo daremos aquí un breve resumen. La casa de planta rectangular con paredes verticales fue el producto final de un larguísimo proceso de transformación.

Estructuras prehistóricas

La planta primitiva de la choza era un círculo, forma que constituye la base de tantos símbolos prehistóricos. Como los pájaros que construyen nidos redondos u ovalados, el hombre arañó cavidades redondas u ovaladas en la tierra.

Los cazadores de renos magdalenienses de Ahrensburg, cerca de Hamburgo (hacia 12000 a. C.), dejaron muchas piedras dispuestas en círculos. Estas piedras

eran utilizadas para sujetar las paredes de sus tiendas. Su descubridor, A. Rust, supuso que cada lugar era utilizado solamente una vez por los cazadores. A veces se añadía una segunda fila de piedras para proteger el suelo excavado de la choza de las inundaciones producidas por la lluvia (1958, págs. 47-54).

Parece ser que las más antiguas viviendas verificables eran concavidades hechas en la tierra, en forma de artesa o de plato. Los ejemplos más numerosos se hallan en Rusia, en Gagarino (Tambov), «donde S. N. Zamiatnin descubrió la parte inferior de una vivienda en forma de pozo poco profundo, estando las paredes reforzadas con una hilera de piedras» (Golomshtok, 1938, pág. 325), en Kostienki (Voronezh) y en otros muchos yacimientos de los períodos auriñaciense y solutrense. Muchas figurillas femeninas de culto fueron halladas en estas viviendas, las cuales se cree que estuvieron techadas.

Estas viviendas dieron origen a la opinión de que «el germen técnico de la casa es... la pantalla recta o curva, que resguarda del viento: en otras palabras, la techumbre. Esto da origen a las dos plantas básicas de toda la arquitectura, la estructura curvilínea y la rectangular» (Menghin, 1939, pág. 427). Es sabido que los tejadillos fueron utilizados en el período auriñaco-perigordiense, como D. Peyrony señaló apoyándose en pruebas ciertas: «Instalaban una choza bajo el saledizo rocoso de La Ferrassie asegurando la base con piedras y escombros» (1934, pág. 90).

Es más que probable, sin embargo, que el punto de partida de la casa fuera determinado por la forma del área de vivienda más que por la forma del tejado.

El círculo alrededor de una hoguera, el círculo alrededor del hogar, es lo primero que se impone: la choza de una sola habitación, circular u ovalada, aparece como forma primitiva de vivienda a través del mundo entero, agrupada a veces con otras hasta constituir una casa de muchas habitaciones.

La forma de las viviendas humanas en la época auriñaciense puede permanecer desconocida para siempre. La época magdaleniense, hace unos diez a veinte milenios, dejó representaciones de varios refugios que proporcionan indicios de algunas de las clases de construcción entonces existentes.

El hombre prehistórico no documenta los objetos de su inmediato entorno, por lo que apenas es posible que sus grabados rupestres representen lugares corrientes de habitación humana o «trampas para animales», nombre que se da frecuentemente a sus símbolos tectiformes o en forma de tejado. Es más probable que estos grabados reproduzcan las casas de las almas o las casas de los antepasados para los espíritus de hombres o animales. Tales viviendas sagradas abundan todavía en las culturas primitivas existentes, entrando en esta categoría una maqueta de casa egipcia predinástica, de barro tostado, con una bandeja para las ofrendas a los muertos.

La Mouthe

La idea de que los grabados rupestres prehistóricos de viviendas representan casas de las almas se revela tal vez más gráficamente en una choza de estacas y ramas que se reproduce en una pared rocosa de la cueva de La Mouthe (Dordoña). Dicha choza ocupa una posición de especial importancia y está, no accidentalmente por cierto, superpuesta a un gran número de pequeños animales visibles

en el dibujo del abate Breuil. Las distintas partes romboidales del tejado parecen estar apoyadas en una pared rocosa sostenida por estacas.

Hemos señalado antes cómo el arte de los indios del noroeste del Pacífico muestra un asombroso parecido con las más antiguas esculturas prehistóricas. Del mismo modo el «santuario secreto» de un cazador de ballenas nootka puede ayudar a interpretar estas primitivas representaciones de viviendas, puesto que se sabe que los pequeños muñecos que contiene encarna las almas de balleneros anteriores.

Font-de-Gaume

Numerosos grabados tectiformes de estructuras techadas, frecuentemente agrupadas como en la cueva de Font-de-Gaume, demuestran un conocimiento de la construcción sorprendentemente avanzado.

También parece haber sido conocida la bóveda de cañón, como lo indican las repetidas líneas paralelas grabadas en un nicho de roca natural, igualmente en la cueva de Font-de-Gaume.

El Egipto neolítico

También se han encontrado pozos o cavidades circulares y ovales hechos por el hombre en el Egipto neolítico. A lo largo de la línea ribereña del antiguo lago del Faiyum, G. Gaton-Thompson halló numerosos fogones u hogares, grandes y circulares, así como numerosos pozos-graneros revestidos de paja, muchos de ellos de 1 a 1,5 m de diámetro y 30 cm de profundidad aproximadamente (Caton-Thompson y Gardner, 1934, págs. 24, 41-42). En el norte de Mesopotamia fueron también hallados «grandes depósitos de cereales, esféricos, construidos con barro, cubiertos por fuera con betún y a veces revestidos interiormente de yeso» (Lloyd y Safar, 1945, pág. 262), en los niveles más bajos de Hassuna.

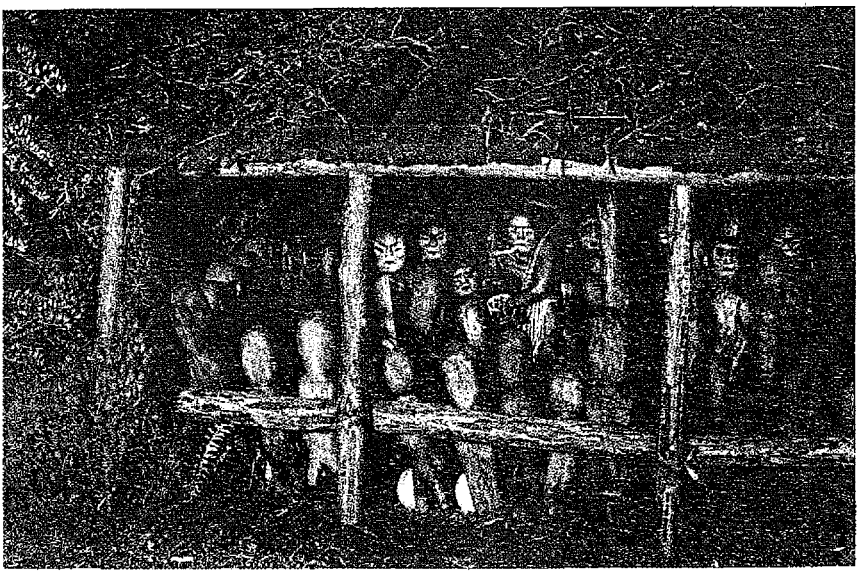
En Merimde, al suroeste del delta del Nilo, Junker excavó dos filas irregulares de chozas ovaladas que a veces tenían casi forma de riñón (1940, pág. 10). Estas chozas también estaban ligeramente hundidas en la tierra, como las viviendas en forma de plato de Kostienki (Rusia). «Sótanos» redondos, construidos —lo cual es bastante curioso— justamente antes del desarrollo de la casa rectangular, han sido hallados cavados en la tierra hasta un metro de profundidad, verbigracia en los primeros asentamientos de Maadi (Menghin y Amer, 1932, pág. 19) y El-Omari, ambos a unos diez kilómetros de El Cairo.

Refiriéndose a la evolución de las tumbas en el Alto Egipto, Scharff declara que «eran al principio pozos circulares u ovalados que se hicieron rectangulares como consecuencia de ser revestidos de tejas hechas con barro del Nilo» (1939, pág. 439).

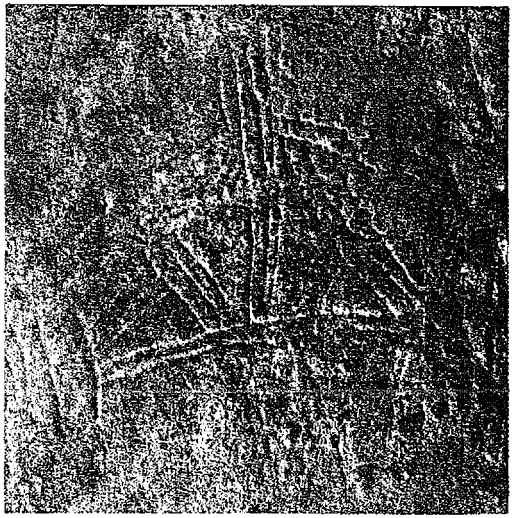
Khirokitia

La forma estándar de la casa no fue establecida hasta después de un largo tanteo: casas redondas, casas ovaladas, casas con paredes inclinadas, y finalmente la

96. Representación de choza prehistórica en la cueva de La Mouthe (Dordoña). Esta choza está superpuesta a un grupo de animales cuidadosamente incisos y pintados. El techo rectangular, a la derecha, está visto desde arriba, apoyado sobre estacas que han sido dibujadas no rectas sino curvadas. Período magdaleniense. Dibujo de Breuil.



97. Modelo de santuario mágico secreto de un indio nootka, cazador de ballenas, en la isla de Vancouver.



98. Representación tectiforme de armazón de una choza prehistórica, incisa en la parte superior de la pared rocosa de la cueva de Font-de-Gaume (Dordoña). Período magdaleniense.

99. Grabado en forma de bóveda en una cavidad natural en la cueva de Font-de-Gaume (Dordoña). Se desconoce el verdadero significado de esta aparente bóveda de cañón.

casa rectangular. Hubo también numerosas combinaciones de casas redondas y rectangulares, como en el asentamiento de Arpasiyya, del cuarto milenio, excavado por M.E.L. Mallowan. Todo había sido ensayado antes de que apareciera la casa estrictamente rectangular y, con ella, el templo limitado por muros rectilíneos.

En la isla de Chipre, a 60 kilómetros de la costa de Asia Menor, ha sido descubierto, en Khirokitia, un poblado de varios cientos de chozas circulares abovedadas (tholoi). Cuarenta y ocho de ellas fueron excavadas y documentadas con precisión por P. Dikaios, quien halló «todo el yacimiento, de unos 4 metros, lleno de tholoi, pequeños y grandes... Algunos de los tholoi de Khirokitia tienen un notable elemento en común con las viviendas de Arpasiyya, a saber, la antecámara rectangular» (1953, pág. 333). Pero esta cámara es mucho más corta. Khirokitia es un poblado primitivo en comparación con otros del área egea. En la cronología absoluta sus viviendas se fechan ahora hacia mediados del cuarto milenio, con 3700 a. C. como límite máximo. Arpasiyya data de los comienzos del cuarto milenio, pero las vasijas de piedra de Khirokitia no pueden compararse con las cerámicas de Arpasiyya, laboriosamente diseñadas. Khirokitia era un poblado fronterizo, pero todavía no se ha descubierto dónde están sus antecedentes directos en la tierra firme de Asia Menor.

El aspecto más interesante de las viviendas de Khirokitia es su organización interna. Tenían una planta superior que abarcaba la mitad del espacio de la planta baja. Esta división es todavía usual en las casas de planta rectangular de las islas griegas, y Le Corbusier reintrodujo este principio secular en su Pavillon de l'Esprit Nouveau de París, en 1925. Cuando visitaba las islas griegas en 1933, junto con varios amigos, sacó su cinta métrica, y yo recuerdo su entusiasmo cuando comprobó que la altura de las casas, del suelo al techo (226 cm), correspondía exactamente a la dimensión que a él le gustaba emplear y que más tarde incorporó en su sistema del Modulor.

Orcomenes

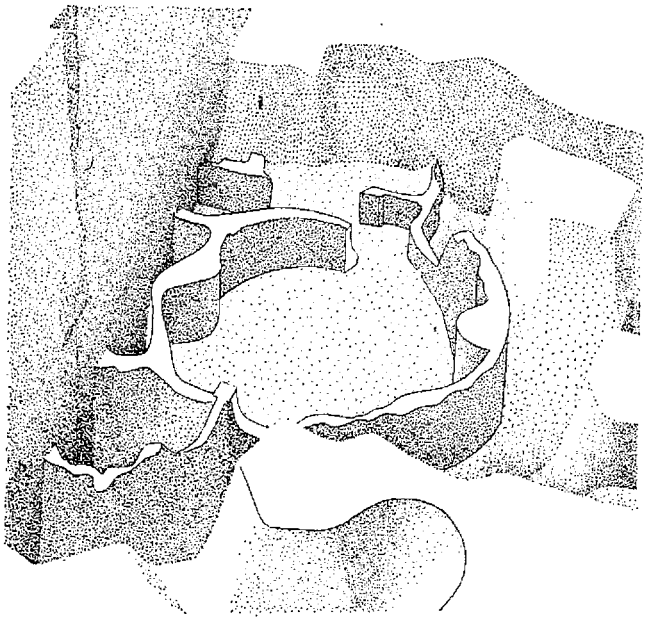
Hasta en un período comparativamente tardío —Orcomenes, en la Hélade (hacia 2000 a. C.)—, Heinrich Bulle halló una hilera de círculos de piedra (hasta 6 m de diámetro), algunas veces alargados en forma oval, directamente sobre base rocosa (Wace y Thompson, 1912, pág. 195). Solamente encima de estos círculos de piedra fueron halladas las primeras plantas aproximadamente rectangulares.

La primera Jericó

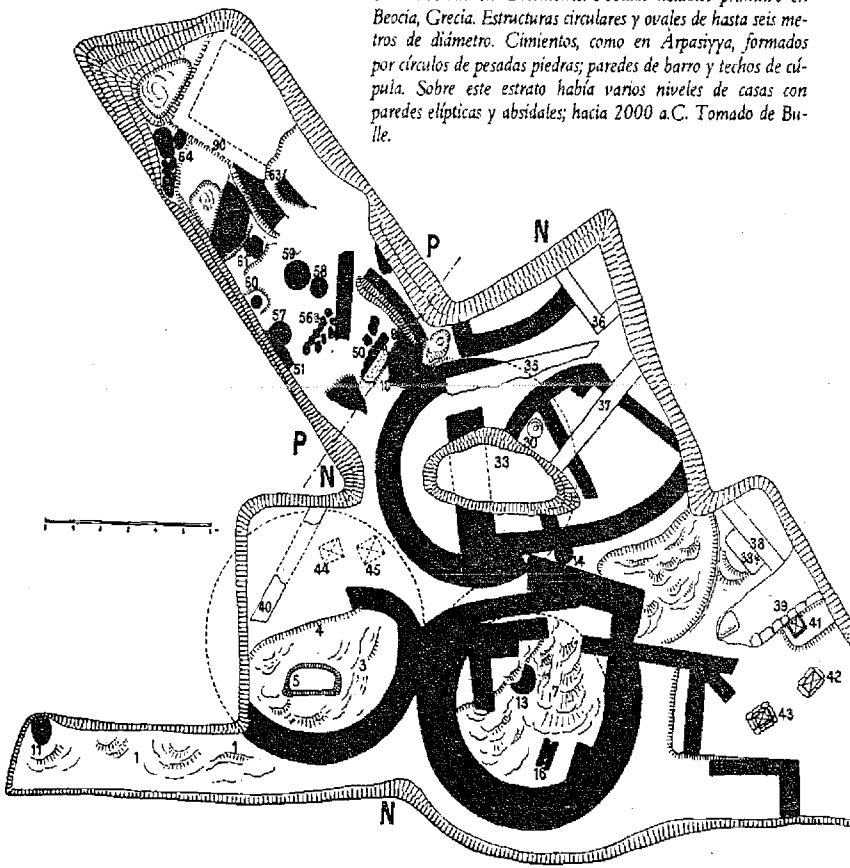
Las excavaciones de Jericó, llevadas a cabo por Kathleen Kenyon, todavía siguen planteando un enigma en la historia de la evolución de la casa y de los asentamientos humanos (1957). Sus asombrosas fortificaciones y sus casas rectangulares parcialmente excavadas pueden remontarse a los tiempos anteriores a la alfarería y —según el carbono 14— a la época situada entre la mitad del sexto milenio y la mitad del séptimo.

Çatal Hüyük

Todavía más sorprendentes son los descubrimientos de una nueva civilización en Anatolia hechos por James Mellaart en Çatal Hüyük, a unos 250 kilómetros al sur de Ankara. Çatal Hüyük (doble colina) era una ciudad de varios miles de habitantes y que abarcaba más de diecisiete hectáreas. Hasta el momento, durante las campañas de 1961, 1962 y 1963, Mellaart ha puesto al descubierto diez estratos que hace remontarse a los milenios sexto y séptimo. En el nivel VI desbrozó un conjunto de cuarenta cámaras, bien equipadas, incluyendo cuatro santuarios, todo con paredes rectangulares o casi rectangulares. Sin embargo, «ni una sola casa tenía acceso directo desde un patio o desde la calle: por el contrario, la única vía de entrada y salida era el tejado» (1963, pág. 54). Desde el nivel II hasta el nivel VIII los santuarios contenían grandes cabezas de toro (o de vaca) similares a los bucranios de varios milenios después hallados por Emery alrededor de una mastaba al norte de Saqqara (1961, pág. 71). Absolutamente nada semejante a esta ciudad ha sido hallado en la cuna de la arquitectura: Mesopotamia. Aquí, en Anatolia, existió una civilización cuyos orígenes y sucesión son desconocidos; una civilización que al parecer llegó y se fue sin evolucionar posteriormente. Se abre un nuevo capítulo de los inexplorados sexto y séptimo milenios.



100. Construcción en Tepe Gaura: Estructura circular, de unos cinco metros de diámetro, con una sola entrada. Uso precoz de los contrafuertes. ¿Santuario o vivienda? Estrato XIX, quinto milenio. Dibujo según Tobler.



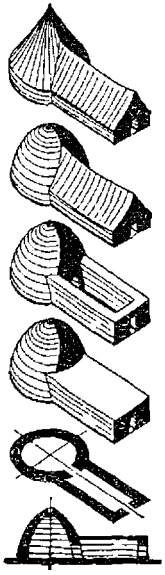
101. Poblado en Orcomenes: Poblado heládico primitivo en Beocia, Grecia. Estructuras circulares y ovales de hasta seis metros de diámetro. Cimientos, como en Arpasiyya, formados por círculos de pesadas piedras; paredes de barro y techos de cúpula. Sobre este estrato había varios niveles de casas con paredes elípticas y absidales; hacia 2000 a.C. Tomado de Bulle.

Hassuna

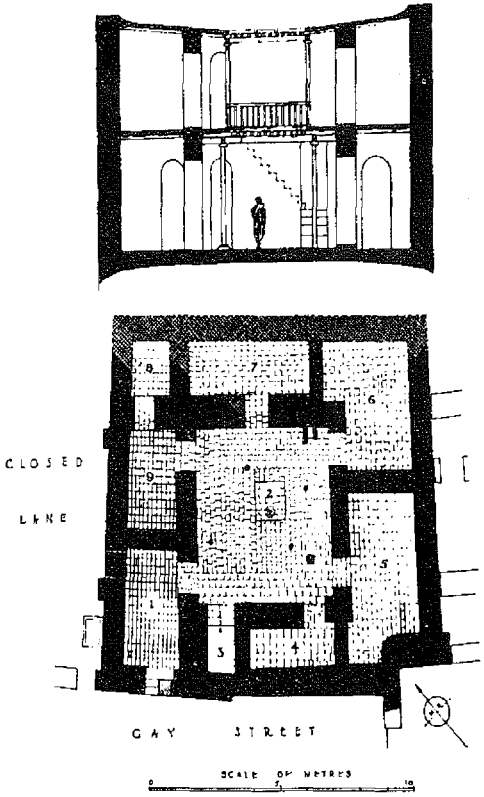
En el norte de Mesopotamia pueden seguirse todas las transiciones de la vivienda, desde las de los cazadores nómadas hasta las de los recolectores y agricultores. La transición puede establecerse aquí desde las tiendas circulares con un cerco de pesadas piedras, hasta las casas cuyas paredes inclinadas llegan a formar el techo, y, finalmente, hasta la casa estrictamente rectangular.

Hassuna, un poblado situado en el tramo superior del Tigris, no lejos de Mosul, fue excavada en 1943-1944 por Lloyd y Safar. Hasta que R.J. Braidwood descubrió Jarmo en una estribación de las altas mesetas curdas, Hassuna fue considerada como el poblado mesopotámico más antiguo conocido en el norte. Sus diferentes niveles revelan las fases de la transición que conduce hasta un asentamiento fijo. En el nivel inferior (Ia) era un campamento de gentes no totalmente establecidas, con hogares: «Un hogar ovalado... se hallaba sobre unos cimientos de fragmentos de alfarería y guijarros fraguados en una especie de primitivo ce-

102. Casa en Arpasiyya: Cimientos de piedra circulares de una casa colmena con larga cámara. En este poblado sobre una fértil llanura los círculos de piedra tenían hasta diez metros de diámetro. En estas primitivas estructuras fueron hallados cuencos de cerámica de excepcional finura de diseño. Cuarto milenio.



103. Casas colmena: Reconstrucción de los diferentes tipos de casas colmena con larga cámara hallados en Arpasiyya. Dibujo de Mallowan y Rose.



104. Casa con patio en Ur: La casa unifamiliar compuesta por un patio central rodeado de habitaciones bien organizadas nunca fue desbancada en Oriente; hacia 2000 a.C. Tomado de Woolley.

mento» (Lloyd y Safar, 1945, pág. 271). Del siguiente asentamiento (Ic) solamente sobrevivieron paredes de adobe fragmentariamente curvilíneas. Por encima de este nivel las casas ya empiezan a acercarse a formas rectilíneas. La construcción de los asentamientos mesopotámicos se sitúa «hacia 4750 a. C. ± 325 años» (Braidwood, 1957, pág. 130).

La primera Tepe Gaura

En los niveles inferiores de Tepe Gaura, también en el norte de Mesopotamia (estratos XVII-XX), se encontraron estructuras circulares de unos cinco metros de diámetro, que sólo pudieron ser estudiadas fragmentariamente (Tobler, 1950, láms. XLII y XLV). Su excavador, A. J. Tobler, no estaba seguro de si estas construcciones redondas, o tholoi, eran santuarios o viviendas (pág. 43).

A lo largo de años de atentísimo examen, E.A. Speiser, y más tarde Tobler y sus colegas del University Museum de Filadelfia, investigaron veinte niveles sucesivos del centro cultual de Tepe Gaura. Su trabajo arrojó luz sobre la evolu-

105. Calle de Ur, con esquina en redondo; hacia 2000 a.C.

ción de los templos y viviendas más primitivos, y el sorprendente paralelismo de esta evolución, nivel por nivel. Cinco o seis niveles más lejanos habrían de permanecer indeterminados. Solamente pudieron hacerse dos sondeos a veintisiete metros de profundidad, los cuales demostraron que «no había ya vestigios de construcciones» *(ibíd.,* pág. 48). En este lugar, con su continuo registro de actividades constructivas remontándose a los tiempos neolíticos, habría sido particularmente interesante conocer las formas de las estructuras más primitivas.

La casa con patio hacia 2000 a. C.

La evolución más primitiva de las casas, tanto en el sur como en el norte de Mesopotamia, es paralela a la evolución del templo. Ambos constaban de una larga habitación rectangular —*langraum*— con pequeñas cámaras a cada lado. Al comienzo las plantas eran tan semejantes (como en Tepe Gaura) que es difícil distin-

guirlas. El templo conservó su larga forma rectangular hasta los últimos siglos de la cultura asiria y babilónica. La vivienda humana, en cambio, tendió hacia la planta cuadrada con habitaciones rodeando un patio interior abierto. Esta forma existía ya hacia 2000 a. C., en tiempos de la III Dinastía de Ur.

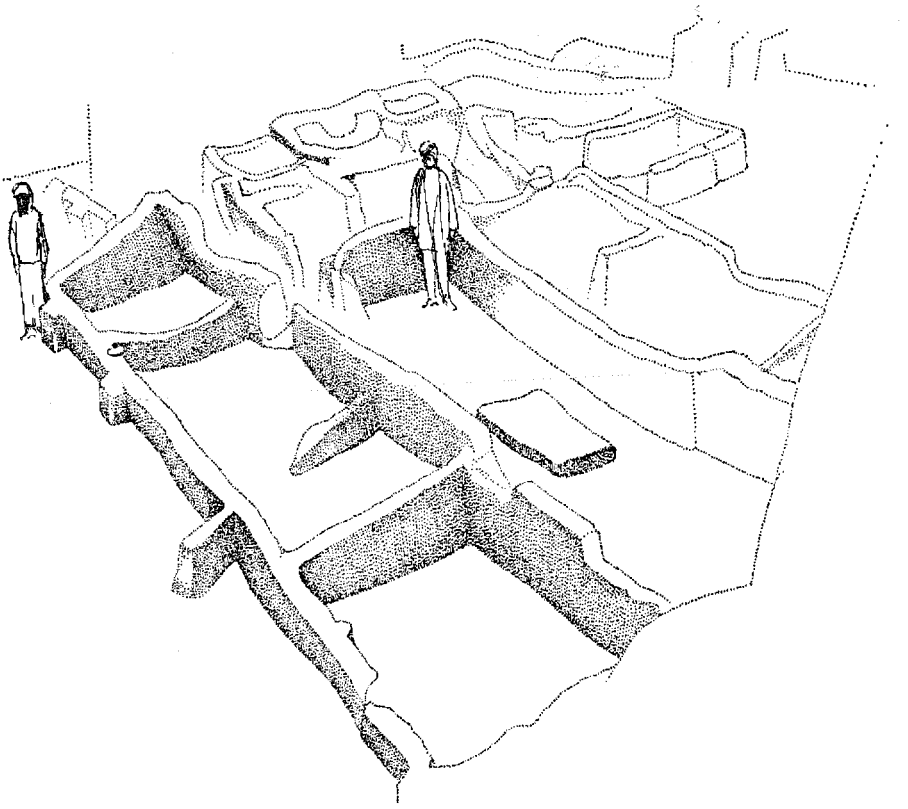
Durante sus excavaciones en Ur en 1926-1927, Woolley descubrió un nuevo *fig. 129* sector urbano de casas altamente evolucionadas. He aquí su primera y gráfica descripción de las mismas: «El verdadero interés del trabajo se halla en el descubrimiento de un barrio urbano bien conservado de la época de Abraham; en el nivel *fig. 105* principal desenterramos calles y casas que arrojaban una nueva e inesperada luz sobre las condiciones sociales y familiares de la época... [en contraste con] una edificación de un solo piso hecha con ladrillos de barro, que constaba de tres o cuatro habitaciones abiertas sobre un patio interior... el ladrillo cocido era usado frecuentemente; la calidad de la construcción, el enladrillado, etc., eran notablemente buenos; los edificios eran frecuentemente de dos pisos y, tanto en planta como en alzado, eran casas de ciudadanos acomodados... El aspecto esencial de la *fig. 104* planta es el patio central, un rectángulo rodeado de cámaras que dan al mismo... Casi siempre el patio estaba pavimentado con ladrillos cocidos... y generalmente en medio del mismo había una boca de alcantarilla con un tubo vertical de desagüe hasta un profundo sumidero» (1927, págs. 387-388, 390). En el piso bajo había cocina, *liwan*, lavabo y vestíbulo. «El piso superior servía de residencia para la familia» (pág. 394). La altura de las habitaciones era de 2,50 metros.

Así, después de tres milenios aproximadamente de continua evolución, la vivienda humana alcanzó un nivel de habitabilidad que nunca ha sido superado en el Oriente Próximo. En esta época Europa estaba experimentando aún con chozas redondas y ovaladas, como en Orcomenes.

La formación de los primeros templos

Al comienzo de la historia de Mesopotamia, hacia 3000 a. C., la forma del templo estaba ya completamente desarrollada. El templo representa el primer tipo de arquitectura monumental. Lo que siguió, a través del cambiante destino de este país, no fue sino la posterior evolución de tendencias que eran ya evidentes en el tercer milenio, durante el período Dinástico Temprano. Esta evolución puede seguirse a través de una larga sucesión de potencias hegemónicas, a través de las dinastías babilónicas y asirias, hasta el final de la existencia histórica de Mesopotamia en el siglo VI a. C.

La relación del pueblo con la deidad se revela por la situación del santuario dentro del recinto del templo, por la situación de las cellas dentro del santuario y, finalmente, por la situación de la imagen del dios. Todo apunta hacia una distancia cada vez mayor entre la deidad y el pueblo. La disposición posterior del santuario tendió a aumentar esa separación.

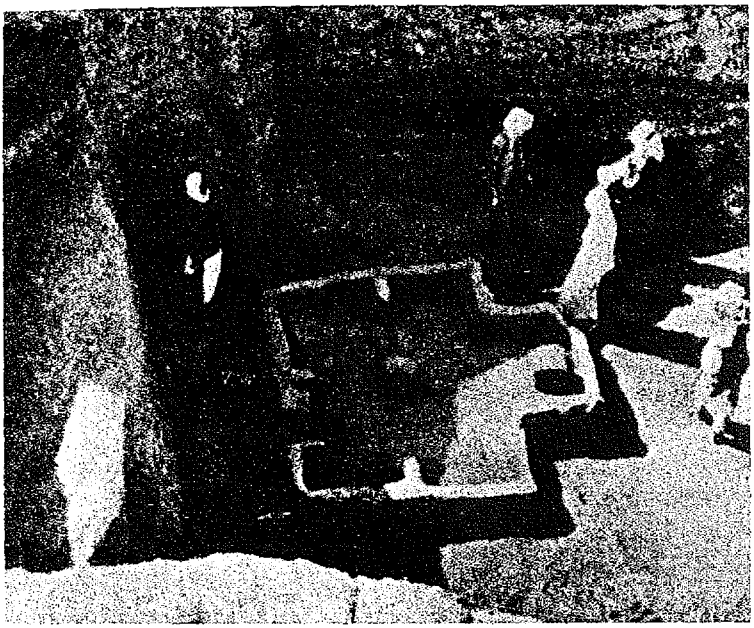


106. Templo en Tepe Gaura (norte de Mesopotamia): Una larga cámara central y un altar bajo para ofrendas distingue al templo de la casa de vivienda de idéntica planta. El langraum *se mantuvo a través de toda la evolución mesopotámica. Estrato XVIII, quinto milenio. Dibujo según Tobler.*

Al comienzo, todo el santuario estaba abierto a los fieles. Había diferentes entradas, como en las iglesias cristianas. Walter Andrae comenta muy atinadamente sobre el libre acceso al santuario: «La vida en estos templos debe imaginarse como un libre fluir a través de los mismos. Es posible ir y venir por todas partes, en fuerte contraste con el espacio cerrado *[Ausschliesslichkeit]* de los posteriores recintos religiosos acadio-babilónicos, que, con pocas excepciones, fueron construidos como una fortaleza con un solo punto de entrada» (1939, pág. 658).

Lentamente se amplió la distancia. Primero se introdujeron unos cuantos escalones y luego se alzó una plataforma como en Al'Uqair y en el llamado templo blanco de Uruk. El templo de Al'Uqair fue erigido sobre una segunda plataforma, más pequeña, situada sobre otra amurallada como una fortaleza.

Esta evolución tuvo lugar durante el período protoliterario o período de formación de Sumer. Pero, una vez dentro del templo, los fieles seguían estando inmediatamente relacionados con el altar y con la mesa de ofrendas.



107. Santuario en Eridu (sur de Mesopotamia): El santuario más antiguo conocido en Eridu, sobre suelo virgen. De tamaño diminuto —menos de cuatro metros cuadrados—, pero contiene ya una mesa de ofrendas central y un altar en un nicho empotrado. Estrato XVI, período anterior a Al'Ubaid, quinto milenio. Tomado de Van Buren.

El espacio interior hasta el tercer milenio

El aspecto más inesperado de la arquitectura del templo protohistórico es, como ya se ha señalado, su acentuación del perfeccionamiento del espacio interior, lo cual estaba en fuerte contraste con la disminución de la importancia del mismo que coincide con el comienzo de los períodos históricos.

En lugar del excavamiento del espacio interior surgen los volúmenes macizos. La formación de una arquitectura plástica, una arquitectura de volúmenes situados en el espacio, fue y siguió siendo la mayor ambición de los arquitectos a través de los tres milenios siguientes.

La desvalorización del espacio interior se produjo paso a paso, paralelamente a la creciente rigidez de la estructura social jerárquica. La magnífica disposición de volúmenes en el espacio —los zigurats y las pirámides— llega a su pleno esplendor relativamente tarde. Los zigurats, templos en forma de torres de muchos pisos, lograron por primera vez proporciones monumentales hacia 2000 a. C.

El templo como espacio cerrado al cual el pueblo tenía libre acceso, donde los hombres podían encontrarse cara a cara con sus dioses, fue interrumpido en su

evolución al comienzo del período histórico. Todas las excavaciones realizadas en las últimas décadas han proporcionado pruebas de ello.

En el sur, en Eridu (Abu Shahrein), Lloyd y Safar excavaron en 1946-1949 la más antigua «casa de dios» todavía conocida, que se remonta a los tiempos anteriores a Al'Ubaid (quinto milenio). Encima de ella, Lloyd y Safar hallaron una larga serie de templos progresivamente diferenciados, cuyas ruinas fueron finalmente incorporadas a la enorme plataforma sobre la cual fue erigido el zigurat de Ur-Nammu poco antes de 2000 a. C.

En el norte, en Tepe Gaura, Speiser y Tobler descubrieron veinte niveles que nos dan una visión de los comienzos de la organización de los santuarios que se inició antes del período de Al'Ubaid y que no concluyó hasta 1500 a. C. aproximadamente.

Los escasos restos de cimientos que hay que relacionar para reconstruir las plantas parecen tan aislados en el tiempo y en el espacio como las estrellas en el firmamento. Pero, a pesar de todas las lagunas, es posible trazar los perfiles de la concepción del espacio interior que se desarrolló durante quince o veinte siglos antes del tercer milenio.

El santuario más antiguo de Eridu fue construido sobre suelo virgen y sólo medía 3,60 × 4,50 metros (Frankfort, 1954, pág. 2). Sus paredes de tierra no eran todavía perpendiculares entre sí, pero algunos elementos esenciales de los templos posteriores estaban ya presentes en embrión, desde los restos de los contrafuertes de las paredes que resaltaban en el espacio interior, hasta la organización del santuario mismo: «... una puerta frente al altar en un nicho y una mesa de ofrendas central mostrando huellas de sacrificios consumidos por el fuego. En esta construcción la cerámica de Al'Ubaid había desaparecido completamente, sustituida por un tipo nuevo y poco corriente sólo ligeramente parecido a los de Tell Halaf y Samarra» (Van Buren, 1949, págs. 123-124).

Los templos más primitivos de Tepe Gaura en el norte (en los niveles más bajos hasta ahora excavados) pertenecen también al período anterior a Al'Ubaid. Aquí puede percibirse también el esquema de la forma común. El templo de uno de los niveles más profundos —estrato XVIII— tenía «una larga cámara central en cuyos lados había pequeñas habitaciones auxiliares. El carácter religioso del edificio está demostrado por un podio rectangular situado ligeramente al fondo de la cámara central o sanctum» (Tobler, 1950, pág. 44). La construcción es todavía muy tosca: paredes de tierra apisonada que no forman ángulos rectos exactos, y contrafuertes, como en Eridu, que sobresalen tanto al interior como al exterior. Estos contrafuertes indican, de forma embrionaria, algo que más tarde será llevado a un alto grado de refinamiento; concederemos especial atención a los tres templos del estrato XIII en los cuales esta tendencia alcanza su perfección.

La acrópolis de Tepe Gaura

Para comprender la evolución de la arquitectura protohistórica no basta comparar las plantas de las construcciones importantes. En un caso en particular podemos observar la relación de un templo con su entorno inmediato: los tres templos

de Tepe Gaura, estrato XIII. En seguida se advirtió que este descubrimiento tenía un significado fundamental para la historia cultural más primitiva de Oriente (Moortgat, 1945, pág. 42). En Tepe Gaura XIII se puede advertir más vivamente que en casi ninguna otra parte el salto hacia adelante de la primitiva arquitectura hacia una forma monumental, y obtener un conocimiento del tratamiento del espacio interior.

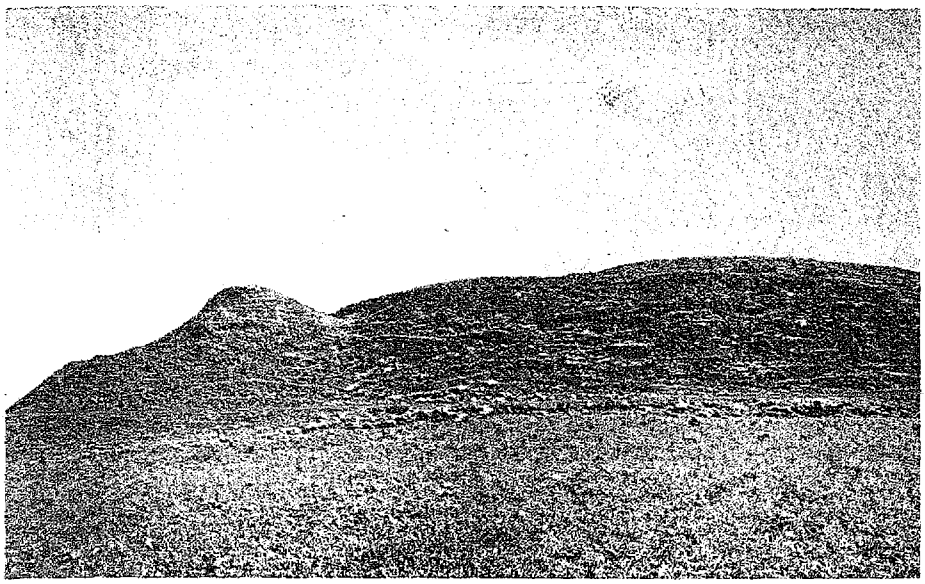
La situación de Tepe Gaura es aproximadamente ésta: situada a 24 kilómetros al norte de Mosul, consta hoy de dos montículos separados por una depresión. Estos montículos contienen todavía sin duda muchos secretos interesantes, particularmente en los niveles más bajos, donde, por desgracia, la excavación fue muy limitada. Speiser realizó aquí, en 1927, algunos sondeos. Las excavaciones efectivas fueron llevadas a cabo entre 1931 y 1938 por el propio Speiser y por otros bajo los auspicios de la Universidad de Pennsylvania, y los resultados se publicaron en dos libros bien presentados y pormenorizados (Speiser, 1935; Tobler, 1950).

Las excavaciones se extendieron a través de veinte niveles: los nueve primeros abarcan todo el lugar y los restantes cubren un área cada vez menor. Tepe Gaura, como hemos visto, fue un centro de población permanente durante largos períodos, siendo abandonada para siempre hacia 1500 a. C. Ningún conquistador erigió aquí un zigurat sobre las ruinas.

Lo que me decidió a visitar el lugar y verlo con mis propios ojos fue la planta abierta de los tres templos del estrato XIII y la inesperada sensibilidad arquitectónica de uno de ellos. Naturalmente yo no contaba con ver los vestigios de ninguna de las construcciones, puesto que cada estrato tuvo que ser enteramente levantado para examinar el inferior. El lugar está ahora cubierto nuevamente de hierba y sirve de pasto para las ovejas, como lo estuvo durante más de tres mil años antes de ser excavado.

Su situación en el paisaje, sin embargo, permanece inalterada. Hacia el sur, los vestigios de los tiempos pasados están de nuevo enterrados bajo el suelo, porque las tormentas han borrado rápidamente lo que la pala descubrió con tanto trabajo. Sin embargo, Tepe Gaura todavía conserva algo del aspecto original del lugar. Los campos de cereales comienzan a cubrirse de verde y, a menos de dos kilómetros, olivares milenarios se extienden por encima de la aldea curda de Fadhilyeh. Más allá se tienden los agudos perfiles horizontales de una cadena de colinas —el Jebel Maklub—, heraldo de las montañas curdas. Tepe Gaura, cuyo nombre antiguo sigue siendo un enigma, quedaba lejos de la gran ruta militar entre Assur y Babilonia: no era un lugar estratégico que excitara la codicia del invasor. Fue un modesto centro religioso, casi de carácter aldeano, situado dentro de un suave paisaje y sin extensas tierras propias; tampoco era un orgulloso centro regional, como Uruk, ni una simple aldea como Hassuna. Yo le pregunté al inspector que nos acompañaba si existían vestigios de asentamientos anteriores alrededor del montículo. La respuesta no fue alentadora.

La estructura del montículo de Tepe Gaura muestra una apretada e íntima agrupación de templos y casas particulares, éstas últimas por lo general sorprendentemente espaciosas. Si, como se ha supuesto, se trataba de un poblado de origen religioso, puede arrojar alguna luz sobre los comienzos de ese sistema. El lugar no estaba tan completamente organizado como, por ejemplo, el posterior de

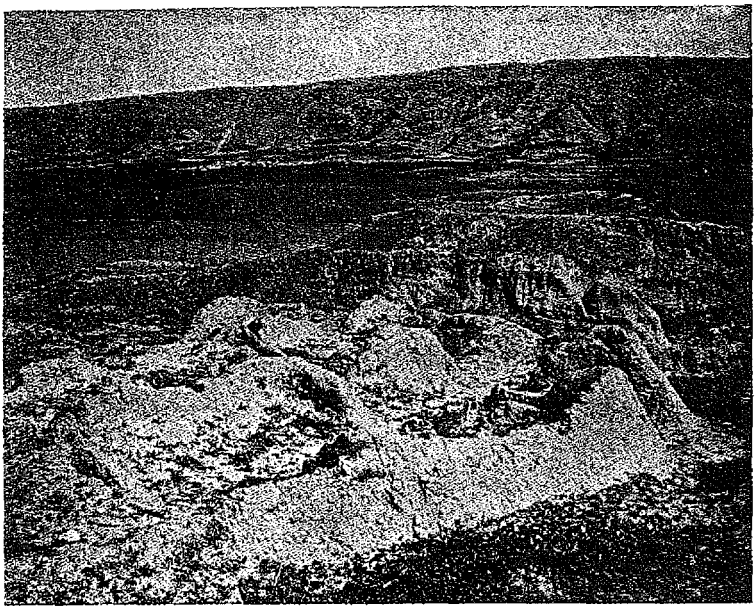


108. Vista de Tepe Gaura, antiquísimo y pequeño centro religioso cerca de las montañas curdas: Dos montículos separados por una depresión donde antiguamente se alzaba la acrópolis. Más de veinte niveles de habitación indican un floreciente asentamiento estable a través de tres milenios aproximadamente y que finalizó en 1500 a.C.

Khafaji, donde las despensas y los talleres fueron construidos entre los muros dobles del gran patio del templo (Frankfort, 1933b, pág. 68). En Tepe Gaura la relación entre el templo y las viviendas se parece más a la de las pequeñas ciudades medievales que a la de los impresionantes templos-fortaleza asirios.

Dejando un margen para la relatividad de las fechas prehistóricas, el período de expansión de Tepe Gaura XIII puede situarse en los comienzos del cuarto milenio, lo cual viene determinado por su situación entre los demás niveles excavados y por la cerámica coloreada encontrada. Había tres templos: al este el más primitivo, encalado y hecho de bloques secados al sol desproporcionadamente grandes, de más de medio metro de longitud cada uno; el central, o templo morado; y el templo norte, el único que estudiaremos aquí.

Estos tres templos, los cuales no forman exactamente ángulos rectos entre sí, están agrupados en una formación en U y enmarcan un espacio abierto más que un patio cerrado. Esto no es producto del azar o de la premeditación, pues los excavadores hallaron que el espacio situado entre los templos había sido cuidadosamente allanado, primero con gravilla y luego con arcilla fina. Por consiguiente, se trazó una forma en U alrededor de un espacio abierto bien delimitado, nivelado e integrador. La organización espacial quedaba acentuada por un nicho grande y profundo en el eje tanto del templo central como de todo el patio. «El lado restante del patio estaba cerrado por varias paredes delgadas, desnudas y sin cone-



109. El montículo de Tepe Gaura, con la perspectiva lejana de las montañas curdas.

xión que no formaban edificios reconocibles» (Tobler, 1950, pág. 30), pero que no estorbaban de ningún modo la relación espacial de los tres templos.

De ellos, el templo norte es aquel en el cual resulta más evidente el comienzo de la arquitectura monumental. La delicadeza y sensibilidad del modelado de su superficie no fueron superadas por ninguna construcción mesopotámica posterior. Como en germen, este modesto templo (8,5 m × 12,25 m) contenía todo lo que más tarde sería ampliado a dimensiones gigantescas en los grandes centros de poder y administrativos, Ur y Uruk. Cuando yo visité Warka (la moderna Uruk), uno de los arqueólogos que trabajaban allí se refirió al templo norte de Tepe Gaura XIII como un templo «de bolsillo». Y lo es en comparación con el recinto religioso (el Eanna) de Uruk, de 120.000 metros cuadrados de superficie. Pero el templo norte de Tepe Gaura XIII fue tan significativo para la evolución de la primera arquitectura monumental como la capilla Pazzi de Brunelleschi para la evolución del primer Renacimiento. En Tepe Gaura, lo mismo que en las modestas dimensiones de la capilla florentina, se pueden detectar los rasgos característicos de las ambiciosas estructuras posteriores.

Lo primero que salta a la vista es el salón central, dominante y alargado, cuyas relaciones y separaciones espaciales están sutilmente logradas. En general, la planta difiere muy poco de la de otros templos, tales como el templo blanco de Uruk o el tardío templo VII de Eridu. Como en ellos, las paredes que limitan la zona central están dispuestas como una serie de nichos profundos. Lo asombroso del templo norte es la delicada articulación de las paredes circundantes, tan delgadas

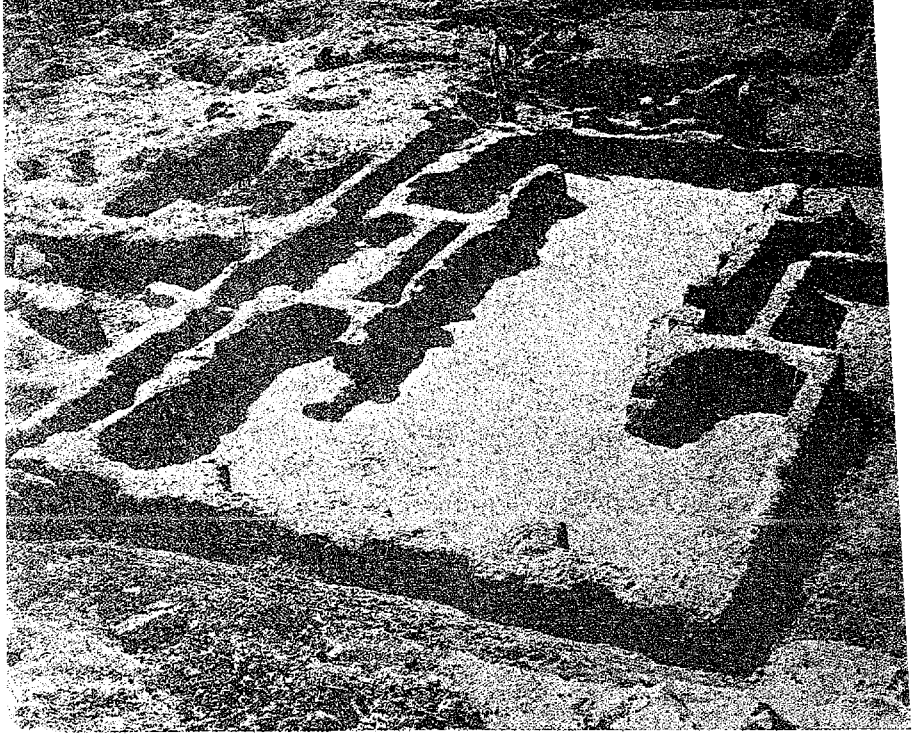
como paneles de hormigón, y su expresa utilización para organizar el espacio interno. Se trataba de un único espacio que, a través de la deliberada disposición de sus paredes, quedaba dividido en un salón central dominante que tenía, en cada extremo, un espacio rectangular perpendicular al eje principal, dispuesto simétricamente. La fuerza del salón central resultaba aumentada por la adición de dos delgados tabiques independientes; éstos creaban grandes nichos laterales, uno de los cuales formaba un pequeño vestíbulo que servía como antecámara o espacio preparatorio para entrar en el santuario principal. Estos nichos también indicaban su posterior evolución como «capillas laterales». La organización de las paredes creaba una fusión de espacios imposible de abarcar con una mirada, lo cual naturalmente dio origen a dudas acerca de si era concebible que la construcción datara de los tiempos protoliterarios. Pero su situación en la serie de estratos y otros hallazgos indudables colocan el templo, sin discusión, en el período de Al'Ubaid.

La parte más sagrada del templo norte era su espaciosa cella, abierta en el extremo septentrional. Sus paredes circundantes estaban incluso más sólidamente construidas que otras del edificio. Los tabiques salientes unían el salón central con la cella y, al mismo tiempo, creaban dos grandes nichos laterales: bolsas de espacio. La articulación de las paredes en el resto de la construcción parece una mera preparación para la de la cella. La pareja de contrafuertes salientes en el eje central todavía tiene solamente dos pilastras, pero los contrafuertes de la derecha y de la izquierda están bordeados por cuatro fustes de pilastra. Esto constituye un tremendo avance desde los toscos contrafuertes de otros templos en los estratos inmediatamente inferiores.

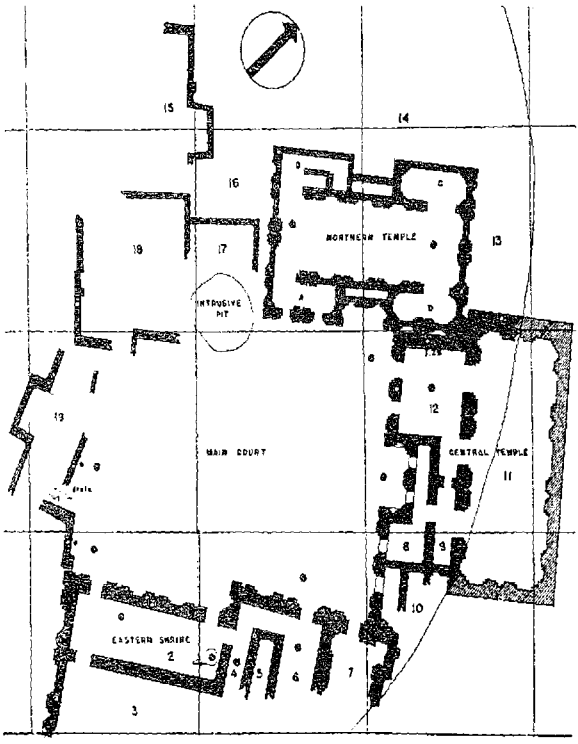
El arquitecto del templo norte debía de tener sentido de la unidad total de la construcción, sentido de la interrelación entre las caras interna y externa de las paredes. Los contrafuertes de pilastras de la cella atravesaban el muro y repetían su forma en la superficie exterior. Sus cuádruples pilastras se repetían también en todas las esquinas de los nichos en forma de capilla. Considerándolo todo en conjunto, la construcción y organización de las paredes de este templo exhiben el refinamiento y la delicadeza que solamente existen en monumentos de gran arquitectura.

Ninguna huella de altar o de mesa de ofrendas fue hallada en el templo norte, en contraste con los estratos inferiores. No sabemos por qué, pero en este estrato se encontraron muy pocos objetos; entre los pocos hallados había un incensario que, como veremos en la sección siguiente, puede dar alguna idea del aspecto exterior del templo. «La cornisa saliente que corona el objeto puede reproducir los aleros de la construcción, y aunque no hay ninguna otra prueba que sugiera la presencia de ventanas en cualquiera de las construcciones del estrato XIII, las aberturas triangulares del incensario hacen tal suposición completamente razonable» *(ibíd.,* pág. 144).

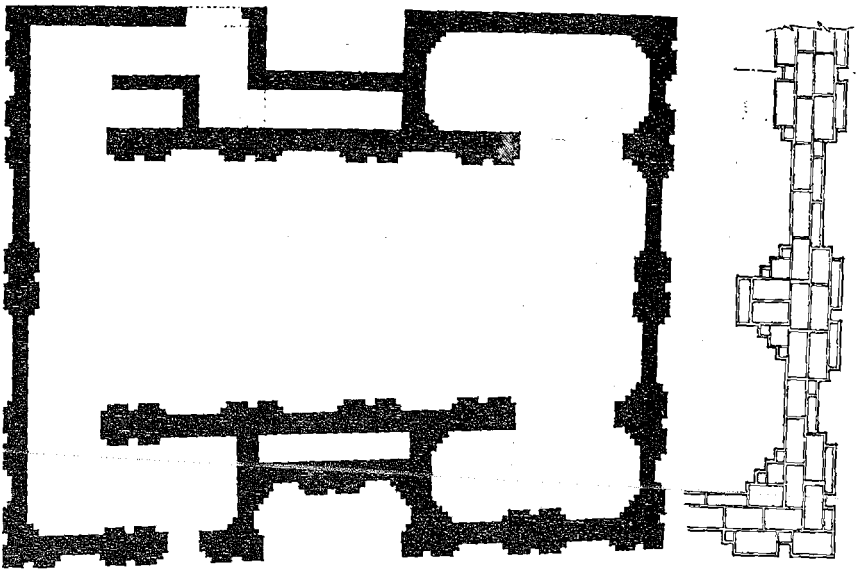
Este templo del período de Al'Ubaid hace imposible explicar la forma de la arquitectura de ladrillo más primitiva en términos puramente materiales, como una imitación de una construcción en empalizada. Las superficies tanto internas como externas de todas las paredes del templo fueron modeladas rítmicamente con pilastras escalonadas. Este sistema era nuevo y representaba un gran paso hacia adelante desde los simples contrafuertes de apoyo. El poder de la imaginación



110. El templo norte: Excavación del estrato XIII en Tepe Gaura. Sólo quedan unas cuantas hiladas de ladrillos secados al sol. El templo estaba probablemente iluminado por ventanas triangulares. El modelado, muy diferenciado, del espacio interior no tiene réplica en este período.



111. Acrópolis de Tepe Gaura: Plano del estrato XIII. Tres pequeños santuarios forman un patio abierto en forma de U. Aunque de pequeño tamaño en comparación con los monumentales templos posteriores de Uruk, proporcionan un valioso testimonio del avanzado nivel de la arquitectura en el período de Al'Ubaid. Comienzos del cuarto milenio. Tomado de Tobler.



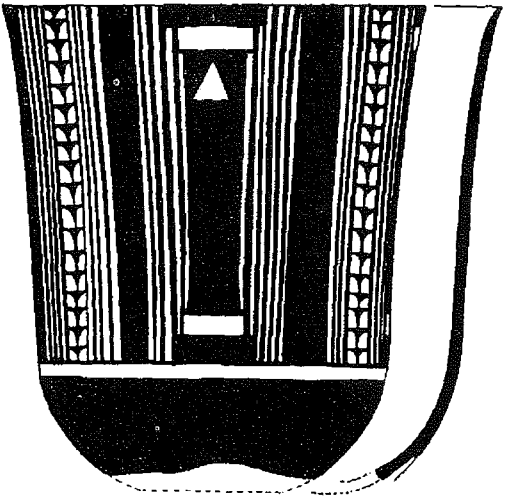
112. Templo norte: Planta y sección de la pared. Los articulados contrafuertes con pequeñas bandas apilastradas sobresalen tanto al interior como al exterior. En contraste con las de templos posteriores, las paredes son extraordinariamente delgadas. Tomado de Tobler.

creadora fue aquí capaz de transformar un material humilde, un material poco prometedor —el ladrillo secado al sol— en una estructura repleta de fuerza espiritual.

Arquitectura, cerámica y abstracción

El diseño de las paredes de Tepe Gaura XIII, con el modelado interrelacionado de sus superficies interna y externa y su asombrosa delgadez, se halla en fuerte contraste con las paredes de los templos del apogeo del período sumerio, cuando, como en el templo de Inanna en Nippur (hacia 2000 a. C.), tenían de 3 a 4 metros de espesor (Haines, 1956, pág. 266). La explicación debe buscarse fuera del campo de la arquitectura.

En este primitivo período se utilizaba el mismo material —la arcilla— para fabricar vasijas de delgadas paredes, duras y resonantes como una campana. Habitaba aquí una raza de hombres que eran capaces de fabricar en el torno de alfarero las vasijas más finas y más delicadamente modeladas, hombres cuyas manos estaban acostumbradas a modelar, rápida y simultáneamente, las caras interiores y exteriores de estos exquisitos ejemplares del arte de la cerámica. Poco después, la cerámica decayó desde su eminente posición y la arquitectura dejó de cumplir su



113. Vaso procedente de Tepe Gaura: La superficie está organizada según líneas verticales, como los contrafuertes del templo. El único triángulo sugiere un significado simbólico. Del estrato XIII. Tomado de Tobler.

114. Incensario procedente de Tepe Gaura: Probablemente las perforaciones triangulares no sólo indican la forma de las ventanas del templo sino que —como en todas partes en el período protohistórico— actuaban como símbolo de fertilidad.

primitiva promesa de refinamiento de las proporciones al servicio de una transcendental apertura del espacio interior. Otras tendencias, basadas en otras premisas, pasaron a primer plano tanto en Sumer como en Egipto.

¿Implica esto que la arquitectura monumental más primitiva se derivaba de la cerámica? No pretendemos afirmar tal cosa. Pero tanto las formas de la cerámica como las de la arquitectura se derivan del mismo principio determinante de la época: la abstracción. Los orígenes de la arquitectura monumental tienen sus raíces en la abstracción. Esto puede explicar la organización y división de su espacio interior. Tanto la articulación de las paredes del templo como la decoración de la superficie de las vasijas lo testifica, como puede observarse en cualquier fragmento escogido al azar. En el estrato XIII de Tepe Gaura fue hallado un vaso cuya decoración describió su descubridor como «admirablemente equilibrada y bien adaptada a los contornos de la pieza a la cual se aplicaba». Y añadía: «El dibujo sugiere la comparación con las ventanas triangulares y con las largas estrías verticales del incensario procedente de este estrato.. No es improbable que tengamos en la decoración central de este vaso una representación estilizada de la entrada a uno de los templos» (Tobler, 1950, pág. 143).

La alfarería no sirvió de modelo a la arquitectura, ni la arquitectura sirvió de modelo a la alfarería. En la base y precedentes de ambas hay una concepción común: la abstracción y el simbolismo.

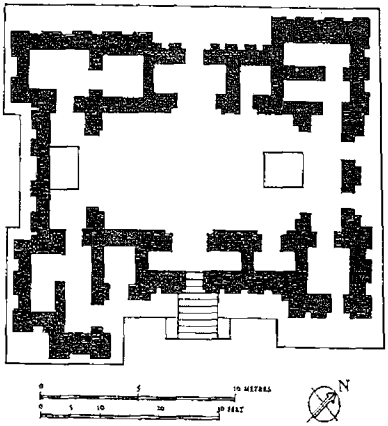
Nos hallamos aquí en la fase final de ese uso de la abstracción como medio universal de expresión que había alcanzado un dominio absoluto en el período neolítico. En el templo norte de Tepe Gaura XIII se realiza otro aspecto de esta larga tradición. ¿Cómo puede explicarse la estructuración, clara como el cristal, del interior de este templo, sus superficies abstractamente modeladas, y la organización de sus divisiones, si no es como producto de una imaginación preparada a través de largo tiempo para crear formas carentes de imagen directa en la naturaleza?

La separación creciente entre la deidad y el pueblo

Podemos hacernos una idea de la sucesión temporal de las formas del espacio interior y el modelado de toda la construcción mediante la comparación de cuatro templos: los templos de Tepe Gaura XIII en el norte, y Eridu VII, el templo blanco y el templo D de Uruk en el sur.

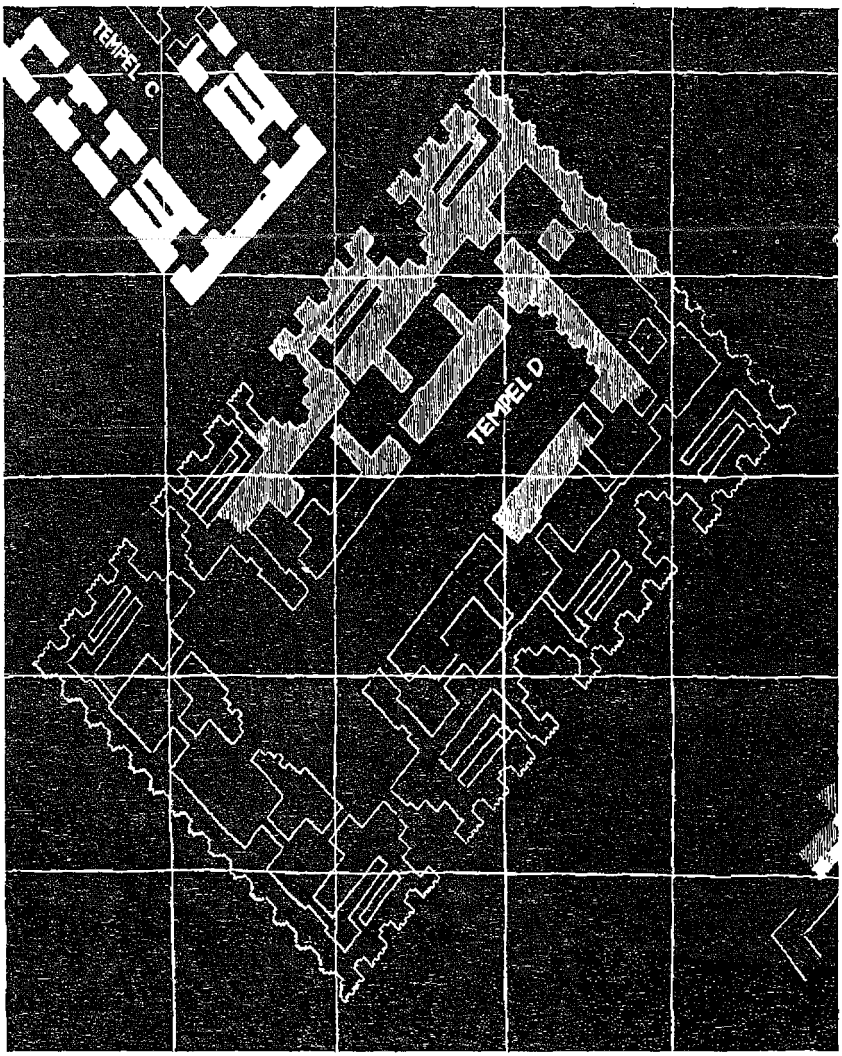
El más antiguo de ellos es Tepe Gaura XIII, de hacia 3500 a. C. o probablemente anterior. El más reciente es el templo blanco de Uruk, del período de Jemdet Nasr, entre 2800 y 2600 a. C. El templo VII de Eridu y el templo D de Uruk se sitúan entre estas fechas.

El interior de Tepe Gaura XIII, aunque diferenciado en la forma, es una sola estancia. Como en un edificio de hoy, el espacio interior está dividido por dos tabiques que contribuyen a formar nichos abiertos en cada extremo.

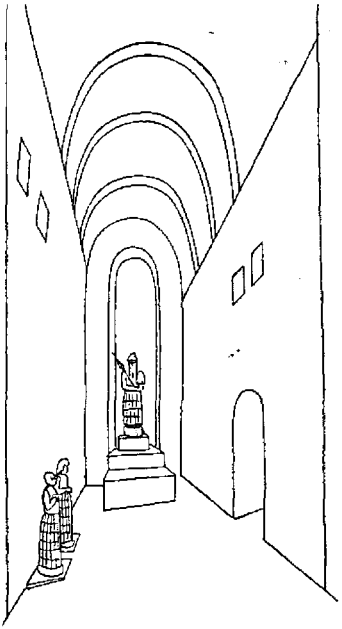


115. Plano del Templo Blanco de Uruk: Situado en una alta terraza a la que se accede por escalones, con entrada por tres lados. Posterior a 3000 a.C. Tomado de Lenzen.

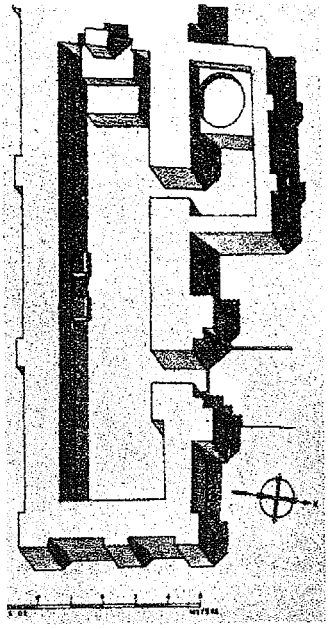
116. Planta del Templo VII de Eridu: Esquinas fuertemente acentuadas y contrafuertes y huecos alternando a lo largo de las paredes. Puede entrarse en la larga cámara desde tres lados. Tomado de Frankfort.



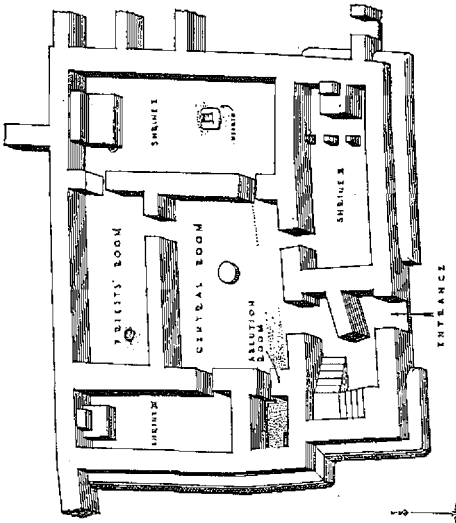
117. Planta del Templo D de Uruk: El más grande de todos los templos sumerios (50 × 80 m), muestra un completo dominio del modelado del espacio exterior e interior. El refinamiento de los profundos huecos en las paredes exteriores indica el alto nivel del período. Uruk IV, hacia 3000 a.C. Dibujo de Lenzen.



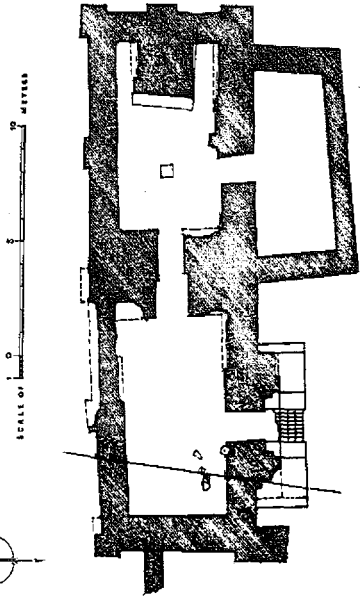
118. Santuario con una sola cámara en Tell Asmar: No es seguro que, como se muestra, hubiera una estatua del dios Abu en el altar. Dibujo según Lloyd, tomado de Delougaz y Lloyd.



119. Santuario de comienzos del período dinástico en Tell Asmar. En este período el templo tenía una sola entrada cerca del extremo de la cámara larga. Tomado de Frankfort.



120. Santuario acadio en Tell Asmar. Cerca del comienzo de este período, el santuario quedó dividido en dos por el muro más grueso. Tomado de Delougaz y Lloyd.

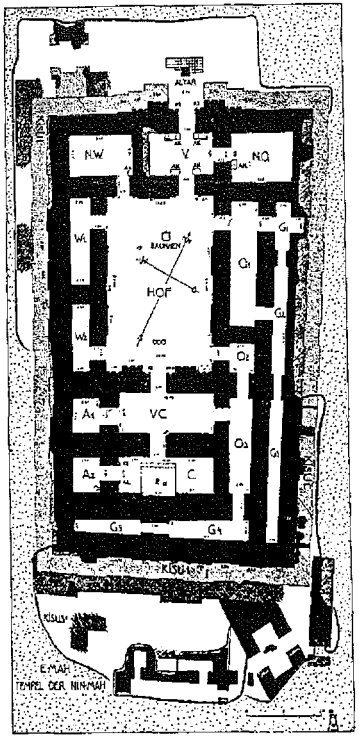


121. Los tres santuarios de Tell Asmar, del Segundo período Dinástico Temprano: Todo el complejo tiene solamente una entrada desde el exterior. Tomado de Frankfort.

La planta del templo VII de Eridu, más grande, es muy parecida a la de Tepe Gaura XIII, aunque las esquinas fuertemente resaltadas están más marcadas aún, las paredes son más gruesas y los contrafuertes alternando con huecos poco profundos rodean toda la estructura. A pesar de la semejanza general de la traza externa, la tendencia a apartarse de un espacio indiferenciado que abarca todo el interior está ya claramente marcada. En su lugar, se pone el acento en una larga cella con pequeñas habitaciones auxiliares a lo largo.

El templo blanco de Uruk es con mucho el más conocido de todos los santuarios protoliterarios. Uruk fue el principal centro religioso de Sumer y era todavía una ciudad orgullosa y rica en la época de los reyes seléucidas del siglo IV a. C. Sus dioses, que eran considerados dueños de la ciudad, eran Anu e Inanna. Una larga línea de reyes mitológicos reinó en Uruk, Gilgamés incluido. Los hermosos relieves de su famoso vaso de alabastro ofrecen la representación más primitiva de una agricultura exuberante en el período de Jemdet Nasr.

El templo blanco se alza sobre una terraza levantada sobre las ruinas de sus predecesores: una muestra de las grandes realizaciones de esta misma idea del espacio al final del período protoliterario, en los comienzos del tercer milenio. Este templo debe su nombre a que sus paredes de ladrillo estaban revestidas de cal. Estaba dedicado al dios supremo Anu, señor de los cielos. «Su planta es aproximadamente rectangular (17,50 × 22,30 m). La parte más importante del templo es la cámara central, de 18,70 metros de longitud y 4,85 metros de anchura, bordeada en el lado nordeste por cinco habitaciones y en el suroeste por dos habitaciones y



122. Plano del templo de E-Mah, en Babilonia: Este templo de la diosa Ninmah muestra cómo la tradición del langraum *persistió hasta el final. La separación de los fieles de la deidad ha sido ahora acentuada por una serie de barreras. Siglo VI a.C. Tomado de Koldewey.*

dos escaleras» (Lenzen, 1942, pág. 8). Lenzen llama la atención sobre el hecho de que el templo de Tell Brak, en Siria, junto al río Khabur, un afluente del Eufrates, excavado por Mallowan en 1937-1939 y que es aproximadamente del mismo período que el templo blanco, tiene casi exactamente la misma proporción de longitud a anchura (pág. 29). Por consiguiente, tanto en el norte como en el sur se desarrollaron la misma planta y la misma concepción espacial.

Muchos grandes templos fueron construidos en Uruk, puesto que, siendo la ciudad de la diosa Inanna y de Gilgamés, era un centro religioso de singular importancia. El templo más grande fue hallado en el estrato arcaico, Uruk IV. Conocido como Templo D, medía 50 × 80 metros y fue construido hacia 3000 a. C. El interior tenía forma de T y las paredes exteriores, con huecos profundos, mostraban la técnica altamente refinada alcanzada en este período. Hasta las iglesias de las épocas gótica y barroca no se encuentran de nuevo paredes exteriores tratadas de una manera tan plástica.

La separación de la cella

El patio interior. En el período anterior a Sargón, antes de la mitad del tercer milenio, se hizo evidente la creciente separación entre la deidad y los fieles. En lugar de muchas entradas había solamente una, situada en el extremo más alejado de la cella. Luego fue insertada una antecella delante de la cella. Posteriormente, un patio interior contribuyó a acentuar la distancia.

La separación entre la deidad y el pueblo llegó a ser expresada arquitectónicamente hacia los comienzos del período de Sargón de Acad, alrededor del siglo XXIV a. C.

Existe una importante laguna en el conocimiento que tenemos de este período, pues no sabemos dónde estaba efectivamente situada la nueva capital de Acad. Esta era la residencia de Sargón, el primer gran conquistador, rey de «los cuatro extremos de la tierra», cuyo imperio se extendía a la costa mediterránea e incluso más allá.

Puede recogerse un débil reflejo en Eshnunna, una pequeña ciudad sargónida en Tell Asmar, excavada entre 1931 y 1933 por Frankfort, Delougaz y Lloyd. Eshnunna estaba situada sobre el río Diyala, un poco más al norte de donde éste desemboca en el Tigris, más abajo de Bagdad. Aquí fue construida una serie de templos, uno sobre otro, empezando en el período protoliterario y acabando en los comienzos del período acadio. Fueron halladas cuatro versiones del santuario más primitivo del período protoliterario, todas con plantas irregulares.

Encima había una serie de tres templos cuadrados construidos durante el Segundo período Dinástico Temprano. Aquí aparecen reunidos tres pequeños santuarios alrededor de un patio interior común, cada uno con una sola entrada. La única conexión se realizaba a través de una puerta que daba al patio, lo cual puede deberse en parte a que el templo se hallaba en medio de la ciudad y estaba rodeado por casas particulares, como un monasterio barroco. Fue en el segundo de estos templos cuadrados donde los excavadores hicieron su mayor hallazgo: «una colección de estatuas enterradas bajo el suelo» (Delougaz y Lloyd, 1942, pág. 189).

Esta serie de templos tenía «cuatro principales niveles de construcción» (página 192), perteneciendo los dos últimos al período acadio. Careciendo de nichos y de cruceros, en contraste con los templos primitivos tales como Tepe Gaura o Eridu VII, la nave era extremadamente larga. Se entraba a la misma por el lado más largo, hacia el extremo más alejado del santuario. La relación entre longitud y anchura era de cuatro a uno. Solamente existía una pequeña habitación contigua que los excavadores «supusieron que era una cocina en la cual se preparaba el alimento sagrado» (Frankfort, 1934, pág. 44). Debido a la delgadez de las paredes y a otras razones, los excavadores consideran que dichos templos estaban cubiertos por una bóveda semicircular de ladrillos de barro, de tres metros de luz. «Es sabido que los sumerios tenían ya dominado el principio del arco de ladrillo y... no hay razón para suponer que la construcción de una bóveda de 3 metros de luz, por medio de una cimbra de madera, estuviera más allá de su capacidad arquitectónica» (Delougaz y Lloyd, 1942, pág. 196).

La reconstrucción provisional de la nave da cierta idea del aspecto del interior, aun cuando su altura puede ser algo exagerada. En contraste con los primitivos templos del norte y del sur, la modelación del interior se había simplificado en extremo: ni contrafuertes, ni nichos, sino sólo un espacio fuertemente concentrado.

Diríase que nos halláramos solamente a un paso de las iglesias románicas del sur de Francia con sus bóvedas de cañón. Sin embargo, la inclusión de los fieles y los ritos dentro de un único espacio se acercaba a su fin.

El hecho se da ya en los niveles de construcción tercero y cuarto del templo. «El santuario quedó entonces dividido en dos compartimentos separados por una pared con una puerta» (*ibíd.*, pág. 192). Esta nueva pared divisoria es más gruesa que las restantes, y la puerta es pequeña. El altar ritual y la mesa de ofrendas estaban ahora separados del pueblo, y el espacio para los ritos y el dedicado al pueblo son del mismo tamaño. La única entrada al templo ha sido monumentalizada.

Es lógico que esta separación se produjera precisamente al comienzo del período acadio. Una y otra vez los cilindros-sellos acadios reproducen a los dioses antropomorfos en diálogo con Sargón, y el propio rey fue representado algunas veces con una corona de cuernos, el distintivo de un dios.

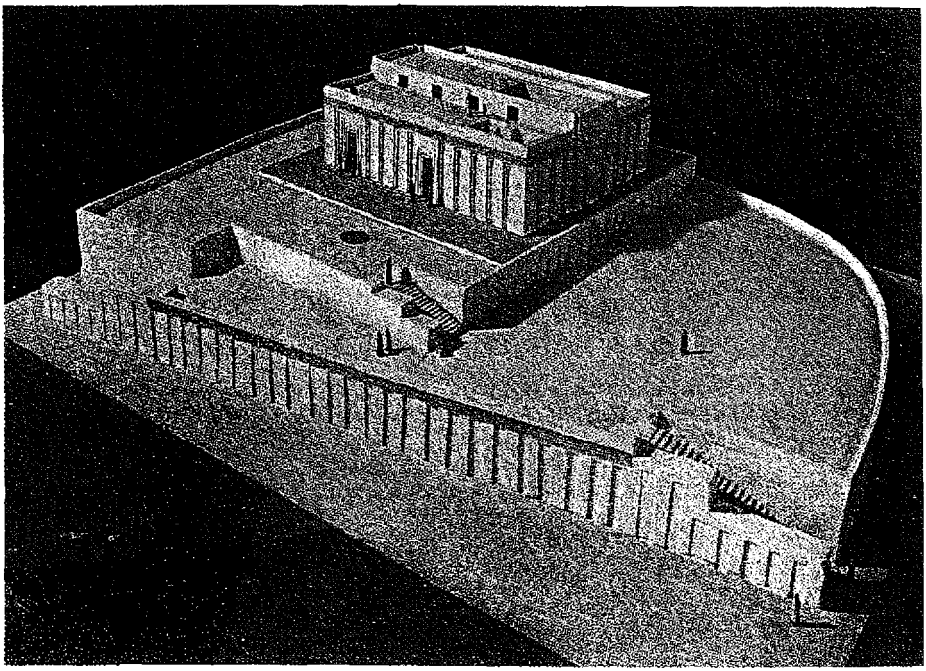
La pared divisoria en los templos más posteriores de Tell Asmar apunta al comienzo de un proceso que se acentuaría aún más: la separación de la deidad del pueblo.

Hay muchos ejemplos en los que puede seguirse la evolución posterior del templo mesopotámico. El aislamiento del dios aumenta constantemente. La imagen se halla bajo una escasa luz o en total oscuridad. La planta del santuario fue adaptada para este propósito y la tradición permaneció inalterada hasta el final. El templo, por lo general, continuó siendo más bien una sencilla estructura rectangular aun cuando fuera emplazado en un lugar muy llamativo, como el templo a la diosa Ninmah (la Gran Madre), construido por Sardanápalo y más tarde por Nabucodonosor, hacia el comienzo del siglo VI a. C. Este templo babilónico se hallaba entre la Puerta de Ishtar y el Palacio, junto al ancho camino procesional del gran festival del Año Nuevo. Había que pasar a través de varias puertas y salas para alcanzar el patio interior del templo. La cella, que contenía una imagen de la

diosa, estaba situada en el eje del patio, a un nivel superior, y precedida de una antecámara. «Parece probable que al pueblo no se le permitiera penetrar más allá de la antecámara. Es evidente que el acceso a la cella estaba intencionadamente dificultado por el estereobato, el cual sobresalía casi tanto como la puerta» (Koldewey, 1913; trad. ing. 1914, pág. 59). La antecella estaba unida a la cella por una sola pequeña abertura frente a la imagen de la diosa, la cual probablemente permanecía en completa oscuridad.

La arquitectura policroma hacia 3000 a. C.

Aparte de la articulación, tanto interna como externa, de las paredes, también apareció, antes de 3000 a. C., un refinado enriquecimiento de las superficies arquitectónicas. Se han conservado los mosaicos policromos de forma cónica que cubrían las macizas columnas semiembebidas del complejo religioso de Uruk IV, *fig. 92* y la riqueza de los altorrelieves y los toros de cobre exentos del templo de Nin-



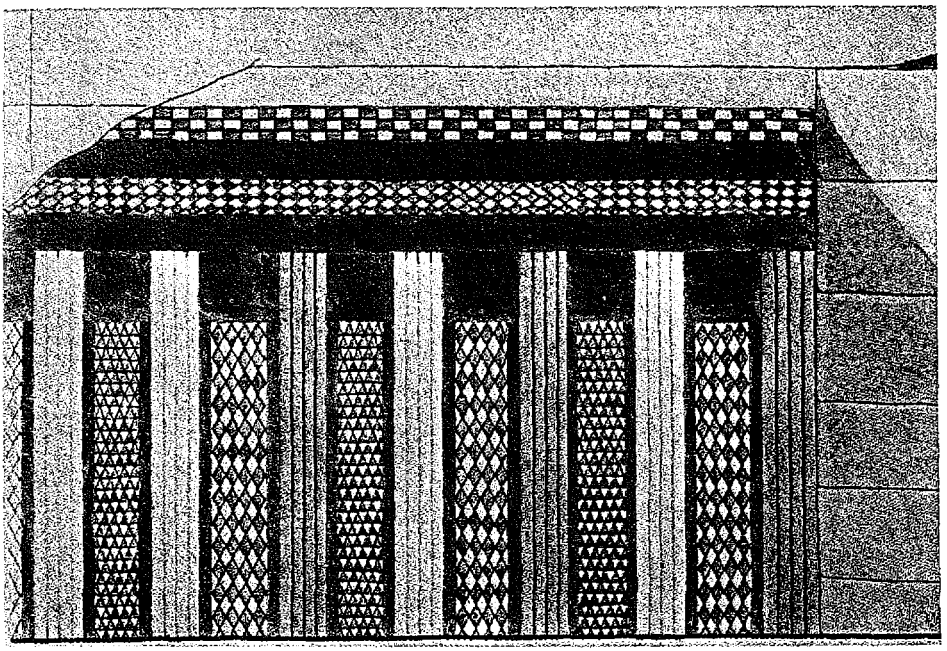
123. Maqueta del templo pintado de Al'Ugair. Los contrafuertes de la curvada terraza inferior son semejantes a los que se emplearon después en la construcción de los zigurats. Antes de 3000 a.C.

hursag en Al'Ubaid, de aproximadamente medio milenio después, indican la avanzada evolución de Sumer en este período.

La muestra más completa del uso del color en las paredes interiores es la que proporciona el llamado templo pintado de Al'Uqair, a unos sesenta kilómetros al sur de Bagdad. En este santuario puede reconocerse de nuevo el anhelo prehistórico de dar forma a lo que es esencialmente inmaterial. No podemos, sin embargo, esperar la gran riqueza del simbolismo prehistórico de las paredes de las cavernas, cuyas representaciones fueron el resultado de miles de años de experiencia. Nos hallamos aquí ante un nuevo comienzo.

Mediante el uso de técnicas muy refinadas, Lloyd y Safar pudieron rescatar los frescos, sumamente frágiles y fragmentarios, del templo pintado, y por consiguiente revelarnos una visión fidedigna de la manera en que fue pintado el interior del templo (hacia 3500 a. C. según ellos —1943, págs. 132-158—, aunque pudo haber sido después, hacia 3000 a. C.).

La planta de este templo era la normal: una larga sala con pequeñas cámaras a ambos lados; la fachada articulada en una serie de nichos y contrafuertes acanalados. Sus dimensiones eran casi idénticas a las del templo blanco de Uruk. También como éste, estaba levantado sobre una alta plataforma. «Las caras de las paredes interiores del edificio fueron también cuidadosamente cubiertas de una capa de arcilla. Cada metro cuadrado que ha sobrevivido lleva huellas de capas de co-



124. Fresco del altar del templo pintado: Aquí se puede ver el tratamiento de la superficie de una fachada protohistórica. Los huecos entre los contrafuertes estriados están cubiertos con dibujos triangulares y romboidales. La cornisa horizontal tiene dos bandas ornamentales, la superior probablemente saliente.

lor o adornos pintados.» Lloyd insiste luego en «la dificultad casi insuperable de conservar o aun de catalogar más que una pequeña proporción de estos frescos» *(ibíd.,* págs. 139-140). Al ser descubiertos a la luz brillaban tanto como el día en que fueron pintados, hace más de cinco mil años, pero se desvanecían en pocas horas. Sin embargo, se pudo establecer el sistema seguido para pintar las paredes interiores. Primeramente se aplicaba «una banda de color puro, generalmente algún matiz del rojo, formando un friso de 1 metro de altura aproximadamente alrededor de toda la estancia. Encima había otra banda de adornos geométricos de unos 30 centímetros de altura» (pág. 140). Finalmente, en la parte superior de las paredes corría un friso pintado con animales y figuras humanas sobre fondo liso blanco.

El altar estaba tratado con especial esmero. Tenía un tamaño considerable: el sólido enladrillado tenía 2,60 metros de altura con un saliente de 3,60 metros. «En el lado derecho, seis escalones de poca altura» *(ibíd.)* conducían hasta la superficie. Naturalmente, en este período todavía no había sobre el altar estatuas del dios. En el frente del altar y a ambos lados del mismo fueron halladas «las pinturas mejor conservadas del edificio» *(ibíd.).* Aquí se nos ofrece, por fortuna, una muestra singular del tratamiento total de la fachada de un templo protohistórico: «El dibujo del frente del altar tiene carácter arquitectónico y representa la fachada de un edificio, siendo tratado el propio altar, de hecho, como un templo en miniatura. En los contrafuertes están representadas incluso las tres estrías por medio de líneas verticales, mientras que los huecos intermedios están rellenos con un dibujo geométrico comparable a la decoración de mosaico hallada en una posición similar en varios templos de Warka [Uruk]... Las bandas verticales que representan los contrafuertes fueron pintadas alternativamente de blanco y amarillo» (págs. 140-141). Los huecos entre los contrafuertes fueron rellenos a su vez con dibujos romboidales y triangulares, ambos de antiguo significado simbólico. Estos eran también los motivos dominantes de la cerámica de Al'Ubaid y de los mosaicos de las columnas de los templos de Uruk y Al'Ubaid.

La cornisa horizontal de la fachada del templo también fue hábilmente representada en este altar, por medio de dos largas bandas horizontales, una rellena con un dibujo romboidal y la otra con rectángulos. Estas bandas quedaban separadas entre sí por una oscura línea continua.

A derecha e izquierda del altar, como guardianes protectores, estaban representadas dos «figuras de animales excelentemente conservadas» (pág. 141), una «acostada» y la otra sentada (actualmente en el Museo de Bagdad).

¿Eran leones o leopardos? Lloyd señala: «Ambas figuras son lo que en heráldica podrían llamarse normalmente 'leones', pero como quiera que están cubiertas de manchas negras sobre fondo blanco, tal vez la palabra 'leopardo' sería más apropiada» *(ibíd.).* Todos los guardianes posteriores serían leones. Es muy posible que nos hallemos ante una última supervivencia de los tiempos prehistóricos y que el «leopardo», con su grueso perfil, proceda de un lejano antepasado. ¿No son sus manchas negras, desproporcionadamente grandes, una reminiscencia de los puntos y círculos de los tiempos auriñacienses o de los puntos negros sobre dos caballos de la cueva de Pech-Merle, que de ningún modo trataban de representar un caballo pío?

125. Fresco representando un león, del templo pintado: Las grandes manchas que hacen que este león parezca un leopardo pueden ser supervivencia de los tiempos prehistóricos. Otro león hallado por Layard en Eridu también tenía círculos marcados en el cuerpo.

Desde el punto de vista iconográfico es interesante señalar que las quijadas de estos «leopardos» guardianes estaban ya amenazadoramente abiertas, como ocurrió más tarde con todos los leones mesopotámicos, en contraste con los leones egipcios, representados en meditabunda serenidad.

Los templos de ladrillo de Mesopotamia estaban por lo general sólidamente decorados con ricos colores, lo que permitía olvidar el soporte material del que

estaban formados. En la superficie exterior, la excesiva subdivisión de la ornamentación demuestra que sólo se trataba de un comienzo, de un primer experimento. El tratamiento del color en el interior era mucho más libre, recordando en cierta medida alguna de las pequeñas iglesias románicas pintadas que todavía se conservan en las regiones alpinas.

Sobre el significado de la primera arquitectura monumental

La primera aparición del templo coincide con la aparición de la monumentalidad en la arquitectura. Al primitivo anhelo por establecer contacto con las fuerzas invisibles se le dio, por primera vez, una forma arquitectónica. La serie de templos en los numerosos estratos de Eridu, Tepe Gaura, Uruk y otros yacimientos no mostraban signos de las imágenes antropomorfas de dioses que aparecieron más tarde con el advenimiento de los reyes.

En las sepulturas y tumbas de Tepe Gaura, de las cuales fueron descubiertas más de cuatrocientas, se hallaron numerosos objetos: collares, botones, sellos, figurillas de animales, colgantes y amuletos. En los niveles inferiores y en los sondeos efectuados en la base del montículo fueron halladas pequeñas y toscas figurillas de la fertilidad, prolongación de las primitivas Venus. Dichas figurillas «pueden ser consideradas como representaciones de la Diosa Madre... Casi todos los ejemplares responden a un modelo común, en el cual la mujer... es siempre representada sujetándose los pechos, los cuales están fuertemente modelados. Las cabezas están simplemente indicadas en la arcilla» (Tobler, 1950, pág. 163). Esto demuestra por qué, en el período Dinástico Temprano, el poder de Inanna-Ishtar, diosa de la fertilidad, del amor y de la guerra, era tan grande.

Tampoco entre los restos del templo blanco de Uruk y del templo pintado de Al'Uqair se hallaron indicios que sugirieran un panteón antropomorfo. Solamente después del período acadio aparecieron dichos indicios con abundancia.

No es seguro que las largas y amplias cellas de los templos primitivos contuvieran la imagen de un dios en un extremo. En el templo de Tell Asmar, Frankfort y sus colegas hallaron diez figuras «que parecen haber formado la dotación escultórica completa... enterradas bajo el suelo junto al altar» (Frankfort, 1954, pág. 24). Estas estatuas (muchas de las cuales se hallan actualmente en el Oriental Institute de Chicago, y la más grande, un hombre y una mujer, en el Museo de Bagdad) plantean el problema de la aparición de las deidades en su forma antropomorfa. No es absolutamente seguro que la figura más alta, de unos 75 centímetros de altura, pueda realmente ser identificada con Abu, dios de la fertilidad y de la vegetación. Aunque es mayor que las demás figuras, el dios mantiene las manos en la misma posición orante que las otras.

Los objetos religiosos hallados en estos templos primitivos consistían simplemente en un altar y una mesa de ofrendas. No se puede dilucidar, por consiguiente, si el centro religioso de Eridu estuvo dedicado, desde sus comienzos, al

servicio de una deidad definida o, planteado más tajantemente, si en el quinto milenio Enki, el dios sumerio del agua y de la sabiduría, cuyo culto tenía su centro en Eridu, existía ya. De hecho, parece muy improbable. Los primeros signos claros de su existencia aparecen solamente en uno de los niveles superiores (Templo VII), donde «todo el suelo era una capa de *raspas de pescado*, de 15 centímetros de espesor aproximadamente» (Lloyd, 1947, pág. 581), las cuales se han interpretado como ofrendas a Enki, dios de las aguas, aunque no había imagen alguna del dios.

La organización del espacio interior de los templos antes de 3000 a. C. demuestra el deseo de llegar a un contacto directo con los poderes invisibles sin la mediación de deidades antropomorfas. Esto representa un triunfo tan grande de la imaginación creativa como los primeros dibujos del hombre auriñaciense. Estos constituyen el comienzo del arte, y aquéllos el comienzo de la arquitectura.

La tragedia de las excavaciones arqueológicas es que los escasos vestigios perdonados por la tierra, siempre reacia, pueden ser eliminados de nuevo —esta vez para siempre— con el objeto de descubrir los estratos inferiores. Pero estos recuerdos del pasado deberían conservarse vivos.

En las sencillas estructuras de barro secado al sol, la llama de la inspiración ardió brillantemente. No es cuestión de despertar sentimientos de inferioridad o deseos de imitación, pero la comprensión de la evolución primitiva debería estar en la base de los estudios de la historia del arte y la arquitectura: no tanto para registrar los hechos como para fortalecer la creencia en el poder de la imaginación humana. Los comienzos de la *historia* de la *arquitectura están aquí*, en estos templos, y sólo aquí. Con la única excepción de los zigurats, la arquitectura mesopotámica, a partir de aquí y hasta su final en el siglo VI, quedó oscurecida por el radiante fenómeno del desarrollo egipcio.

Sexta parte:
Los zigurats: escaleras de los dioses

Después del período preliminar que abarca los comienzos de la arquitectura monumental y acaba con la iniciación de la historia escrita, se produjo una ruptura. La idea de la arquitectura como modelación del espacio interior no fue alterada bruscamente, pero se hizo evidente un cambio tan pronto como llegó a concentrarse en un solo hombre el dominio sobre los demás y sobre los medios de producción.

El deseo de construir comenzó a orientarse en el sentido de erigir volúmenes macizos: volúmenes situados libremente en el espacio. Paralelamente a la concentración aludida se produjo la supresión gradual del espacio interior. En la arquitectura de palacios o templos, donde quiera que surgen en el período siguiente —Oriente Medio, Egipto o Creta—, puede observarse que las habitaciones se han convertido en largas y estrechas, como la cella sumeria hacia el período acadio. Cuando se necesitaron grandes espacios fueron cubiertos con un bosque de columnas gigantescas, como en el templo de Karnak o, casi un milenio después, en el salón del trono de Darío en Persépolis.

Las expresiones más grandiosas del deseo de colocar un volumen enorme en el espacio son el zigurat y la pirámide. Su construcción maciza alcanzó dimensiones desconocidas anteriormente. Ambos son la manifestación de un poder dirigente dominante y la expresión y símbolo del contacto establecido —hasta donde fue humanamente posible— con las fuerzas sobrehumanas.

Diferencias entre el zigurat y la pirámide

Aunque los zigurats adquieren su forma monumental más de medio milenio después que las pirámides, hablaremos aquí de ellos en relación con la evolución general de Mesopotamia.

Las diferencias entre las dos formas fueron patentes desde el comienzo. Sólo apreciando plenamente estas diferencias se puede llegar a comprender sus formas disímiles. Tanto la pirámide como el zigurat conservaron —desde el comienzo hasta el final de su evolución— los rasgos distintivos de sus diferentes orígenes. Su desarrollo posterior puede ser siempre referido a sus diferentes puntos de partida.

El zigurat apareció dentro de la ciudad de los vivientes como templo o altar sobre una torre escalonada dentro del *temenos* (recinto del templo), siendo accesible hasta su cúspide.

La pirámide surgió en el desierto dentro de una necrópolis o ciudad de los muertos, y era totalmente inaccesible.

El zigurat estaba normalmente dedicado al dios a quien «pertenecía» la ciudad: en Ur el dios lunar Nannar; en Eridu el dios de las aguas, Enki; y en Nippur el dios de las tormentas, Enlil. Esto introdujo una idea de eternidad.

La pirámide era tanto la tumba como la morada eterna del rey como hijo del dios solar Ra. Hasta con su más alto significado espiritual como vínculo cotidiano

del rey entre este mundo y el venidero, cada pirámide estaba asignada a un rey particular que era inmediatamente sucedido por otro.

Con sus superficies de piedra caliza pulimentada o de granito, las pirámides se levantaban sobre las arenas del desierto, intocables. Aunque el zigurat era considerado con sagrado temor, aunque fuera inabordable para el pueblo, sus escalinatas monumentales lo hacían accesible y, al mismo tiempo, reducían la sólida masa de su volumen. El zigurat, con su templo o lugar de ofrendas en la terraza más elevada, y posteriormente un templo bajo en el *temenos*, era la residencia del dios. Aquí, en la fiesta anual, una noche una sacerdotisa se unía al dios en sagrado matrimonio *(hierogamos)*, después de lo cual aquélla era probablemente sacrificada.

El zigurat formaba parte del organismo ciudadano. Aunque se alzaba dentro de un patio interior amurallado y con un antepatio, pertenecía a la ciudad y estaba integrado en su vida. En su período clásico, como en Ur, los edificios públicos más importantes —el palacio del rey, la tesorería y la residencia de la suma sacerdotisa— se hallaban todos muy próximos al zigurat.

El zigurat puede ser considerado más antiguo o más moderno que la pirámide según el punto de vista que se adopte. Sería más antiguo si se adoptan como punto de partida las plataformas, levantadas sobre uno o dos escalones, que formaban la base de muchos templos hacia 3000 a. C. el germen de su forma clásica. Pero sería mucho más moderno que la pirámide si se considera que su existencia independiente empezó con su forma multiescalonada, la cual apareció hacia 2000 a. C., durante la III Dinastía de Ur.

Es posible que existieran torres escalonadas más antiguas. Aparecen en un cilindro-sello anterior a esta época, pero sus dimensiones, a escala tan pequeña, no pueden ser calculadas, y todavía no ha sido descubierta ninguna torre de esta clase.

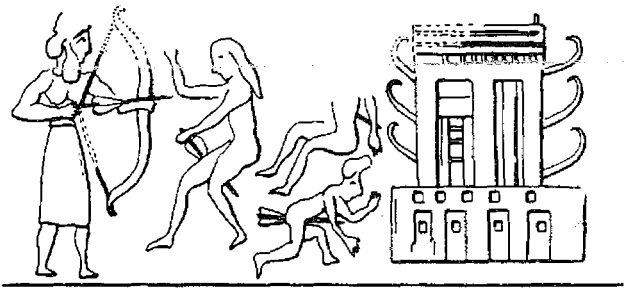
Pierre Amiet refiere el anhelo de verticalidad *(culte en hauteur)* —profundamente arraigado en la idea del zigurat— a sus orígenes como altar escalonado (1951, 1953, 1959). La representación más conocida se halla en la banda superior del gran vaso de alabastro de Uruk (período de Jemdet Nasr), donde se muestra un altar escalonado acompañado por los distintivos de la diosa Inanna. A dicho altar «se podía subir para la presentación de ofrendas o para los rezos» (1951, pág. 85).

Esto ilustra la función básica del zigurat: proporcionar un lugar para hacer ofrendas a la deidad. Los altares elevados figuran frecuentemente en los cilindros-sellos del período Dinástico Temprano. Podía subirse a ellos por escalas y tal vez también por peldaños. Servían como plataforma de desembarco para «el dios en su barca» que está suspendido encima de ellos. Sobre los altares el dios consumaría su matrimonio sagrado con la sacerdotisa, mediante el cual «trae al mundo la renovación de la vida en todas sus formas» (pág. 88).

La representación más reveladora de una torre escalonada muy primitiva se halla en un cilindro-sello del período protoliterario; procede de Susa, de cuya arquitectura más primitiva no queda prácticamente nada. Este sello muestra «la más antigua imagen clara de un templo sobre una alta plataforma» (1953, pág. 28). Una elevada estructura se levanta sobre una subestructura articulada con paneles retranqueados. Delante del templo tres prisioneros son sacrificados por el rey a la

deidad *(ibíd.)*. Seis grandes cuernos sobresalen de la estructura en forma de torre, como los que aparecieron dos milenios después en un relieve de Asurbanipal, también de Susa. En este sello de comienzos del tercer milenio, dichos cuernos parecen ser una versión ampliada de las abstractas cabezas de toro pintadas en las vasijas funerarias del cuarto milenio como símbolos transmisores de fuerza; estos cuernos son a veces representados aisladamente y a veces en serie, como en la vasija de Tepe Musian.

La pirámide fue el resultado de un anhelo repentino tan intenso y apasionado que casi puede decirse que surgió de la noche a la mañana. Desde la mastaba, cuyas superficies inclinadas tenían solamente unos pocos metros de altura, se produjo un súbito salto hasta la pirámide escalonada del rey Zoser (2643-2624 a. C.)



126. Antecedente del zigurat: Especie de torre construida sobre una terraza con contrafuertes. De un cilindro-sello del tercer milenio hallado en Susa, actualmente en el Louvre. Dibujo de Amiet.

en Saqqara, cuya estructura experimental y desarrollo gradual pueden seguirse de cerca.

Unas cuantas décadas después, la pirámide adoptó su forma corriente, alcanzando, durante la IV Dinastía bajo Snefru y Keops, una solidez y una magnificencia que nunca se volverían a lograr.

La gran edad de las pirámides abarcó solamente unos pocos siglos. No sucedió lo mismo con el zigurat. A través de la existencia del País de los Dos Ríos, el zigurat fue el monumento central del culto religioso, siendo mantenido en la mayor estima en todos los períodos: sumerio, acadio, kassita, babilónico y asirio. Incluso Alejandro Magno, cuando entró en Babilonia, quiso restaurar el famoso zigurat de Etemenanki, la bíblica Torre de Babel, pero murió antes de que pudiera realizar su deseo.

Bajo sus sucesores, los reyes seleúcidas, tuvo lugar el último resurgimiento de la construcción de zigurats. Durante la cumbre de su poder, en el siglo III a. C., uno de dichos reyes construyó un zigurat para Anu, dios de los cielos, en el antiquísimo centro religioso de Uruk. La construcción de esta estructura siguió los cánones de casi dos milenios, y a este hecho es al que debemos la más clara idea de las ceremonias y del significado del zigurat (Falkenstein, 1941, págs. 27-29).

Tanto el zigurat como la pirámide son consecuencia del vivo anhelo del

hombre hacia la vertical como símbolo de unión con la deidad, de contacto con el cielo. El zigurat necesitó más de un milenio para alcanzar su cenit, el límite de sus posibilidades; la pirámide necesitó solamente un siglo.

La forma clásica del zigurat

La forma del zigurat —una torre compuesta de una serie de plataformas escalonadas con un templo en la cúspide— se mantuvo en vigor a través de toda la historia mesopotámica. Su predominio, sin embargo, empezó a disminuir tras el colapso del imperio neobabilónico en 538 a. C. Pero los zigurats siguieron alzándose durante siglos y los sucesivos soberanos extranjeros del país se vanagloriaron de su estima hacia ellos: los seleúcidas erigiendo nuevos zigurats y los partos restaurando los antiguos.

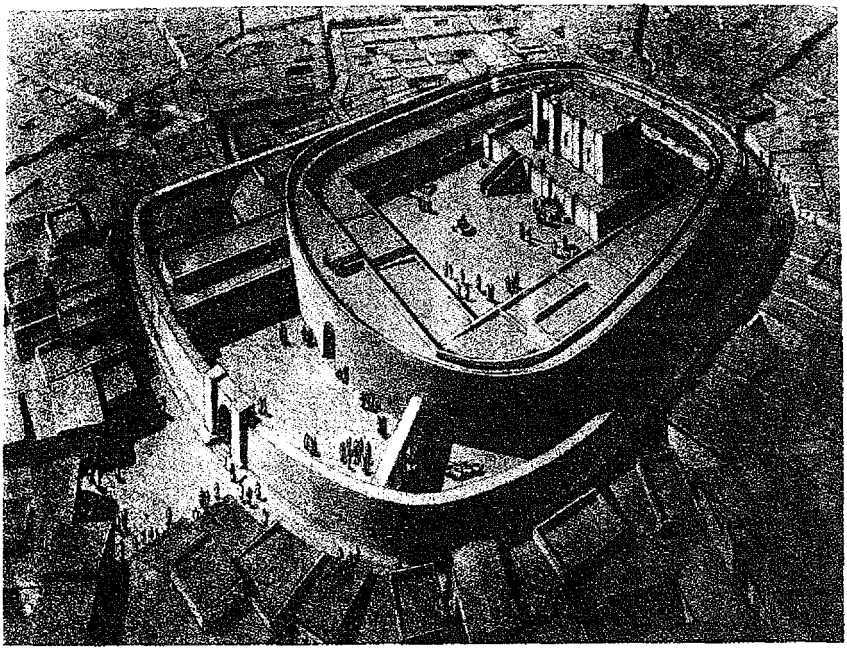
La idea tradicional del zigurat está basada en la descripción bíblica de la Torre de Babel (Génesis, 11, 1-9) y en el relato de Herodoto de su visita a Babilonia (Ravn, 1939; trad. ing. 1942). En un griego del siglo V, la extraña forma del zigurat Etemenanki debió de causar tan profunda impresión como su altura y los colores brillantes de sus siete pisos.

La forma efectiva del zigurat fue algo diferente en las primeras fases del período protohistórico y en su evolución clásica hacia 2000 a. C., aunque la sucesión de escalones superpuestos y progresivamente más pequeños permaneció constante.

La plataforma elevada del templo Ur I de Ninhursag, en Al'Ubaid, tenía seis metros de altura, y la del templo blanco de Uruk, de doce a trece metros desde el suelo. En los templos de Al'Uqair y Khafaji había señales de los comienzos de un tercer nivel. El levantamiento del nivel de los santuarios en los lugares citados tendía a diferenciarlos de estructuras más profanas, pero aun en la versión final del templo de Khafaji puede distinguirse todavía una cierta intimidad entre el santuario y sus alrededores.

La forma ovalada de las terrazas del templo de Khafaji recuerda la evolución arquitectónica más primitiva. Delougaz descubrió que el templo de Al'Ubaid se alzaba sobre una terraza ovalada semejante (1940), de manera que es posible que estos dos templos sean aproximadamente contemporáneos. Todo el templo de Khafaji estaba rodeado por viviendas, disposición no distinta de la de muchas grandes catedrales encerradas dentro de las zonas residenciales de las ciudades medievales. Los edificios que rodeaban las terrazas ovaladas también eran utilizados como dependencias de los almacenes del templo.

Cuando el zigurat alcanzó su forma clásica, todo esto desapareció. Las provisiones necesarias para la comunidad del templo fueron entonces almacenadas en otras partes. Las cámaras situadas a lo largo de la parte interior de los muros que rodeaban los patios fueron, en su mayor parte, lugares de ofrendas, como en Ur y Uruk.



127. El templo oval de Khafaji: Erigido el santuario sobre dos terrazas, se crea una cierta separación de las casas particulares circundantes, pero está aún estrechamente relacionado con los talleres de la comunidad del templo. Tomado de Delougaz.

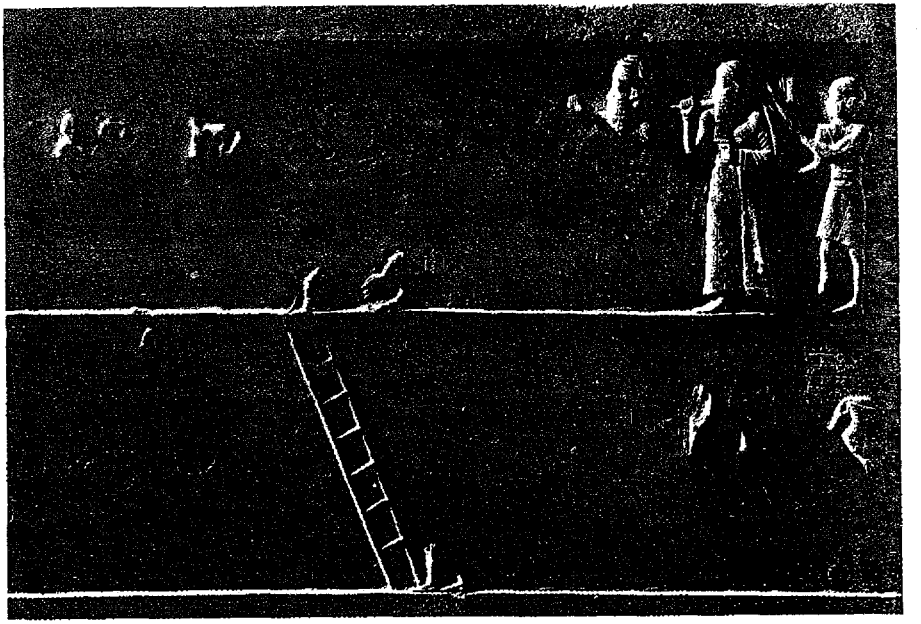
El zigurat de Ur

El zigurat de Ur surgió en medio de la más alta cultura entonces existente. No estaba completamente aislado. Incluso hoy se ven desde su cúspide los zigurats de Eridu y de Al'Ubaid. Se alzaba en un paisaje urbano y agrícola, bien regado por numerosos canales: un escenario inimaginable hoy, cuando nada puede verse en el viaje desde Eridu hasta Ur, salvo los enjambres de langostas que chocan contra las ventanillas del automóvil. En aquella época el Éufrates pasaba por delante de los dos puertos de la ciudad de Ur. No lejos de allí se unía al Tigris, y poco después desembocaba en el mar cerca de Eridu, que estaba unida a Ur por un canal. Por consiguiente Ur, situada en el punto estratégico más alto de este país llano, estaba destinada a convertirse en la capital del Estado civilizado más antiguo.

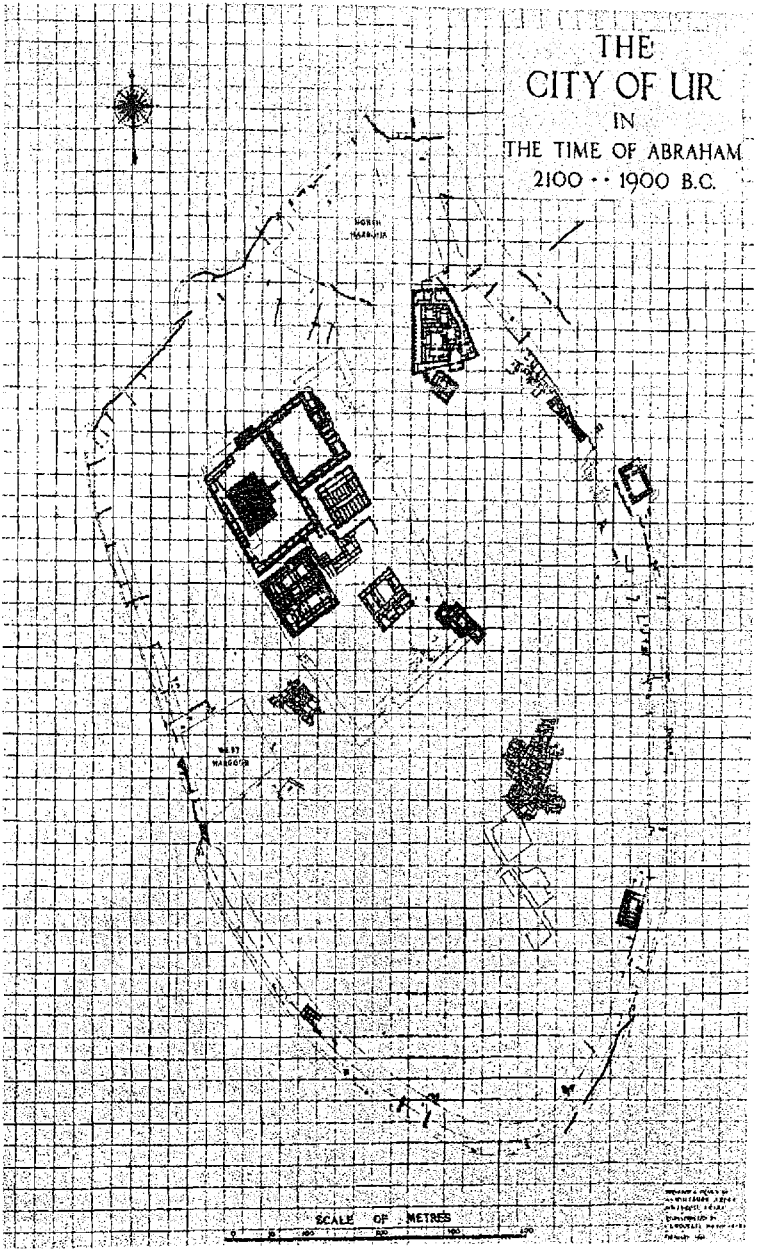
El zigurat de Ur fue uno de los primeros que atrajeron la atención de los arqueólogos. Ya en 1854 J.E. Taylor, cónsul británico en Basora, emprendió las excavaciones, pero los grandes descubrimientos fueron hechos entre 1922 y 1934 por Woolley. Debajo del zigurat halló partes de edificios que se remontaban a miles de años atrás.

El período de la III Dinastía de Ur, que vio la forma clásica del zigurat, corresponde al apogeo definitivo y máximo esplendor de Sumer, después de un largo período de servidumbre. Ninguno de sus soberanos fue más renombrado que Ur-Nammu, fundador de la dinastía y constructor de los zigurats de Ur, Eridu, Al'Ubaid y Nippur. El zigurat de Ur es, con mucho, el que mejor se conserva de todos ellos. Debió de continuar inspirando un sagrado temor, porque incluso el último rey de Babilonia, Nabonides, siguió ampliando la obra de Ur-Nammu, siendo conocidas por los cilindros-sellos enterrados las ampliaciones que hizo en cada una de las cuatro esquinas de la terraza superior. Hasta el nombre de Ciro el Grande está relacionado con el zigurat de Ur. Como todos los edificios religiosos de Mesopotamia desde el comienzo hasta el final, el zigurat fue erigido en sentido diagonal a los puntos cardinales, aunque, como en el caso de los templos, la planta rectangular (aquí 56 × 52 metros) hizo esta orientación sólo aproximada.

Ur-Nammu se permitió lo que en aquellos días era un gran lujo: cubrió el suelo de la primera terraza con una capa de ladrillos cocidos, de 2,5 metros de es-



128. Estela de Ur-Nammu: Detalle. El rey Ur-Nammu (2065-2046 a. C.), gran constructor de zigurats de la III Dinastía de Ur, se halla a la derecha con herramientas de construcción sobre los hombros. Delante de él Nannar, el dios lunar, con la corona con cuatro cuernos. Detrás del rey, un siviente. A la izquierda, fragmentos de una escena representando la construcción del zigurat de Ur.

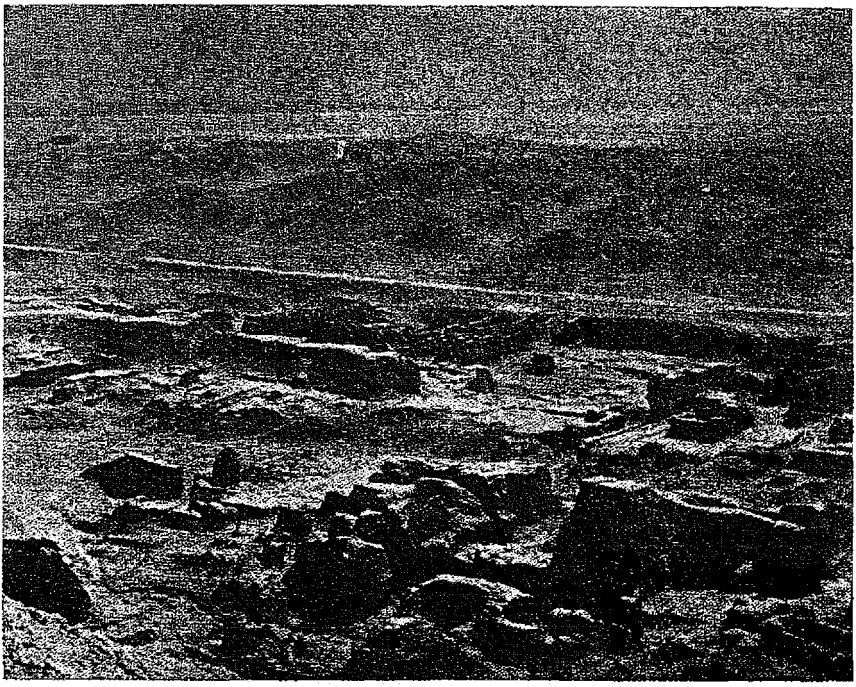


129. Mapa de Ur en la III Dinastía: A la izquierda, el zigurat y el recinto sagrado. A la derecha, el llamado barrio de Abraham, densamente edificado. Los puertos sobre el Éufrates, al norte y al oeste; hacia 2000 a.C. Tomado de Woolley.

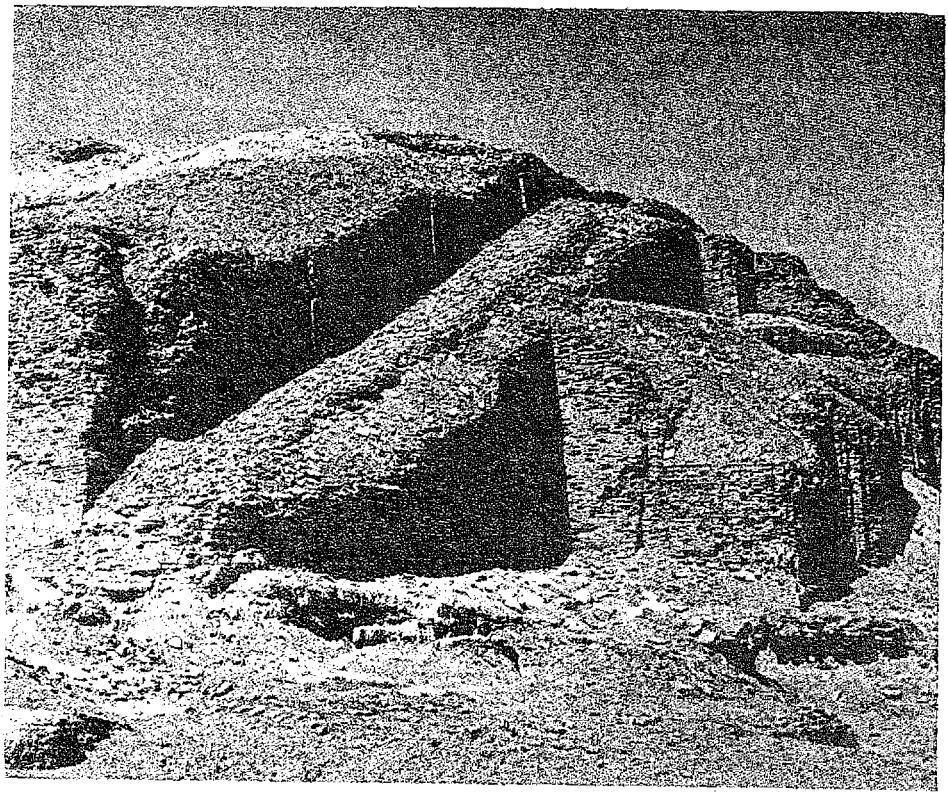
pesor. Su soberbia fabricación les ha permitido durar hasta hoy, y es a esos ladrillos a los que debemos la supervivencia de la forma original del zigurat de Ur.

Según los conceptos sumerios, la ciudad de Ur y su zigurat pertenecían al dios lunar Nannar. En el segundo registro de la gran estela de Ur-Nammu se muestra al rey como constructor, llevando una piqueta al hombro. Encima de él se halla el dios lunar sentado en su trono, con una larga barba y una corona con cuatro cuernos; un hacha pegada al costado y, en la mno, «un emblema conocido convencionalmente como 'el anillo y el bastón' y que se interpreta por lo general como un símbolo de justicia. Esto es probablemente correcto, pero en esta estela los objetos simbólicos son reconocibles por lo que son, a saber, una vara de medir y cuerda» (Frankfort, 1954, pág. 51).

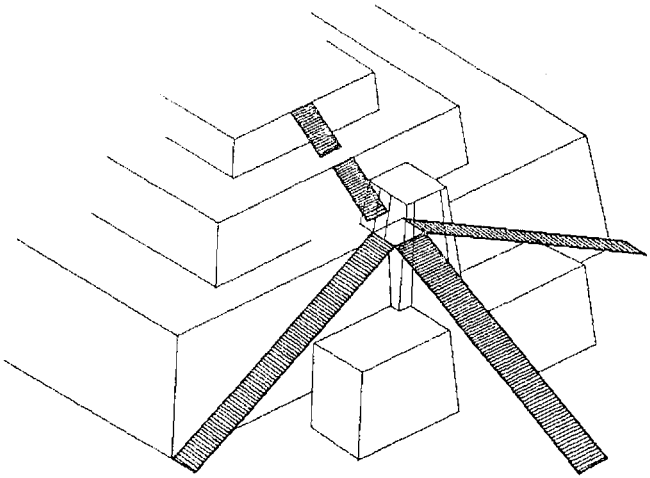
Es difícil determinar si la torre escalonada de Ur tuvo antepasados directos o si, como la pirámide escalonada de Zoser, fue una creación espontánea. En cualquier caso es la primera estructura con tres niveles que se puede identificar. Es también el zigurat más primitivo con terrazas, nichos y paredes inclinadas tan maravillosamente conservados. Estas últimas se elevan hasta una altura de 15 metros sobre el patio en el cual se alza el zigurat. Las seguían una segunda y una tercera terrazas hasta alcanzar una altura total de 21,33 metros.



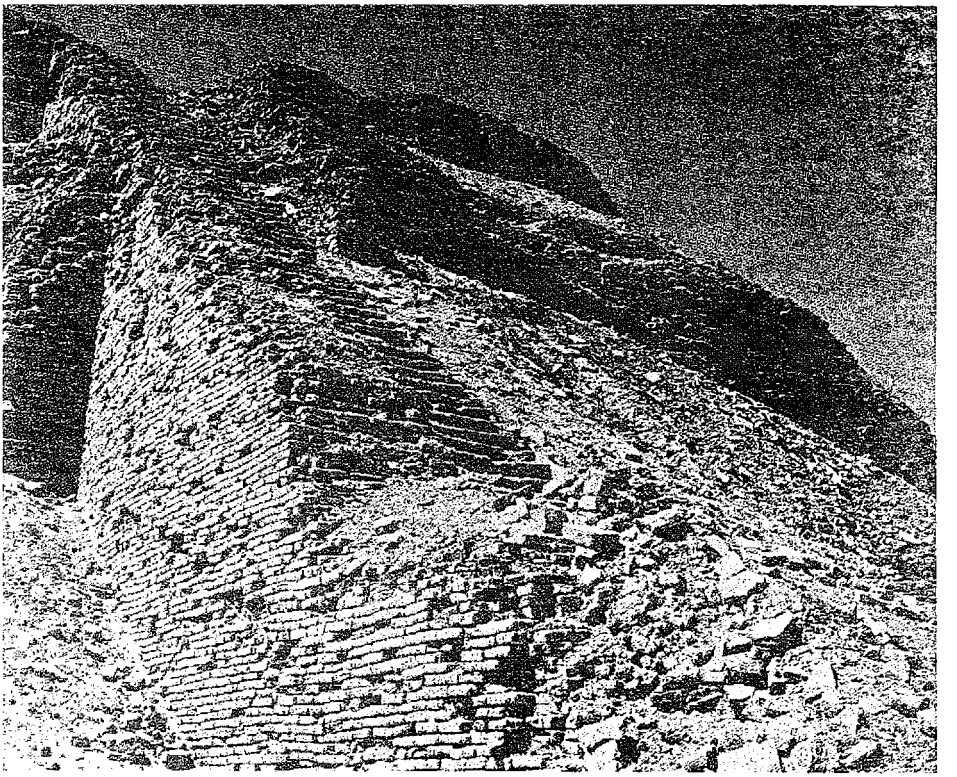
130. Panorámica desde el zigurat de Ur. Ladrillos cocidos ocupan el primer plano en la cúspide del zigurat. Más allá se extienden los templos enterrados y la ciudad de Ur. La línea oscura en el horizonte señala los límites de la ciudad.



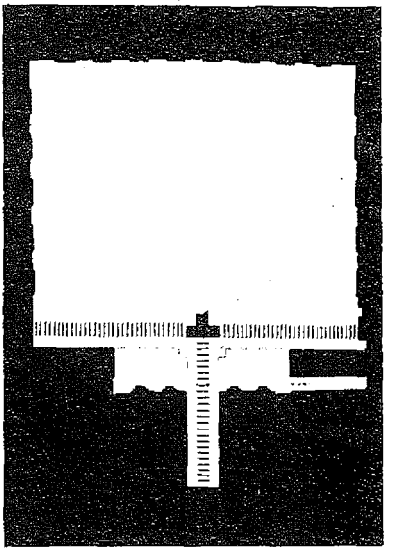
131. Escalera izquierda del zigurat de Ur.



132. Escaleras del zigurat de Ur. Dibujo esquemático según original de Lenzen.



133. La escalera central que sobresale destacadamente del zigurat de Ur.



134. Plano esquemático del zigurat de Ur, indicando su masa compacta y la escalera de tres ramales.

La escalera monumental

El primer nivel, en relación con los conceptos religiosos, proporcionó una oportunidad para la más inspirada invención arquitectónica mesopotámica: la escalera monumental. Apoyadas contra la pared noroeste, dos escaleras simétricamente opuestas descienden majestuosamente hasta el patio del templo. La escalera principal, en el eje central del zigurat, sobresalía de la estructura y se unía con las dos escaleras laterales al nivel de la primera plataforma, donde era coronada por una poterna. A partir de aquí la escalera central se hacía más estrecha y conducía a la plataforma superior. Todo esto creaba una magna perspectiva para las procesiones sacerdotales. Un enorme pilar incrustado en el cuerpo del zigurat soportaba el tramo de escaleras.

Una pequeña escalera había sido utilizada anteriormente para llegar hasta la plataforma del templo de Uruk, y otra más ancha hasta la del Templo VII de Eridu. En cilindros-sellos tempranos se muestran torres de templos con varios pisos pero ninguno ha sido descubierto todavía.

En Ur, por primera vez, la comunicación entre los distintos niveles —un problema puramente técnico— llegó a ser un elemento constituyente de la arquitectura monumental. La amplia escalera central se iniciaba muy lejos del cuerpo del zigurat y continuaba hasta la plataforma superior. La idea de una escalera entre el cielo y la tierra quedaba así maravillosamente plasmada. Característicamente, no fue la satisfacción de necesidades puramente materiales, sino el deseo de una realización simbólica del vínculo entre dios y hombre lo que dio origen a esta nueva y expresiva forma arquitectónica.

Un edificio de 21,3 metros de altura es un objetivo muy limitado. Pero el hombre se ve obligado a utilizar medios limitados para plasmar lo ilimitado, y el deseo de eternidad —de lo que no tiene límites— fue manifestado aquí por un edificio limitado. Construir era una empresa sagrada. Era el medio de unión entre el hombre y el dios.

El zigurat de Eridu

Eridu, uno de los centros religiosos más antiguos, era la ciudad de Enki, el bondadoso dios de las profundidades de las aguas y de la sabiduría. Se extendía a la vista tanto de Ur como de Al'Ubaid, entre fértiles huertos a orillas de un mar que desde entonces ha retrocedido más de cien kilómetros.

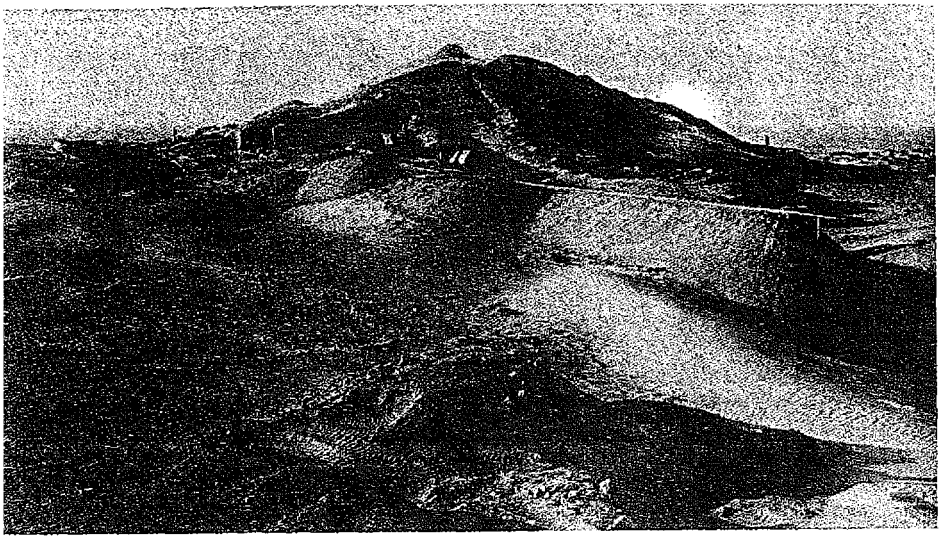
El zigurat de Enki fue durante siglos uno de los hitos religiosos de Sumer. Fue erigido poco antes de 2000 a. C. por el mismo gran constructor Ur-Nammu, y por su hijo Shulgi, sobre los restos de dieciséis niveles de templos anteriores que fueron excavados en 1946-1949 por Lloyd y Safar. Se hallaron entonces objetos de las tumbas de un gran cementerio que permitieron hacerse una idea de la vida, aparentemente idílica, de la población en la época de Al'Ubaid: un pequeño modelo de arcilla de un barco de vela, el más antiguo que se conoce, fue hallado en la tumba de un niño. Hoy el zigurat de Eridu se halla de nuevo bajo las arenas. Todo lo que queda son restos de los dos pisos inferiores y algunos escalones de mármol de la escalera. Desde atrás parece una loma cubierta de nieve reciente.

135. Pie de la escalera izquierda, mostrando la estructura de ladrillos cocidos del zigurat de Ur.

El significado de este zigurat y el respeto de que estuvo rodeado pueden deducirse de un himno transcrito muchos siglos después de que fuera erigido, en la época de Hammurabi, primer rey de Babilonia. Algunos pasajes de una reciente traducción alemana indican las estrechas relaciones del dios Enki con su zigurat.

En el Himno de Eridu (Falkenstein y Soden, págs. 133-137, *passim)* el dios diseña el templo con su «sagrado estilo de caña»:

> *Entonces el Señor de Apsu [las profundidades de las aguas], el rey Enki,*
> *Enki, el señor que decide el destino,*
> *Edificó su casa toda de plata y lapislázuli...*
> *Edificó su casa en la orilla (del mar).*



136. El zigurat de Eridu en la época en que fue excavado; sus muros con contrafuertes pueden verse a la derecha.

Luego la construcción misma adquiere vida y empieza a hablar. Tal vez no se trate simplemente de una ficción poética, ya que los sumerios tenían dioses de la piqueta y del molde del ladrillo. Eran supervivencias del animismo y del totemismos primevos.

Su construcción de ladrillo habla en voz alta (con su señor),
La cima brama como un toro.

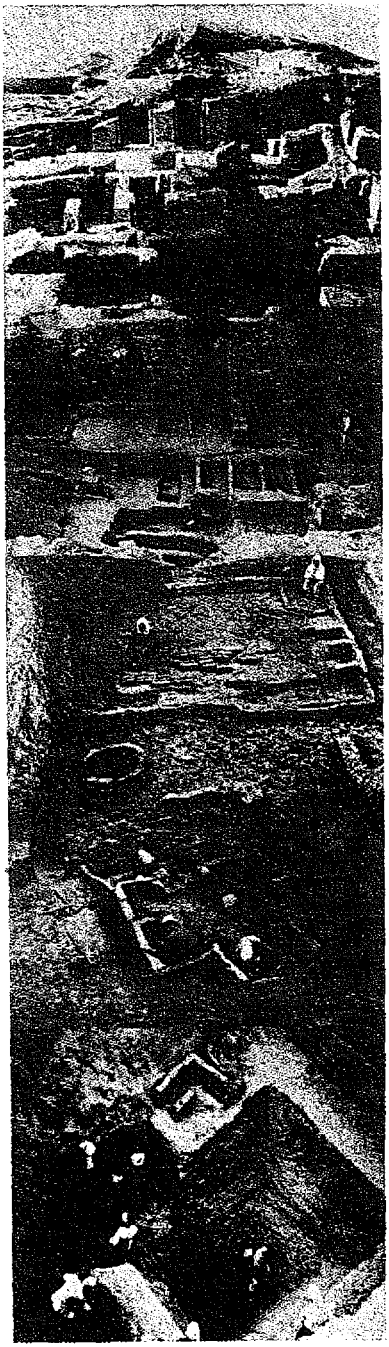
Entonces el mensajero de Enki sube al zigurat y dice:

En ti un altísimo lugar ha sido fundado,
El sagrado cielo está en tu umbral...
La casa edificada al borde (de la tierra), creada para el perfecto poder divino.

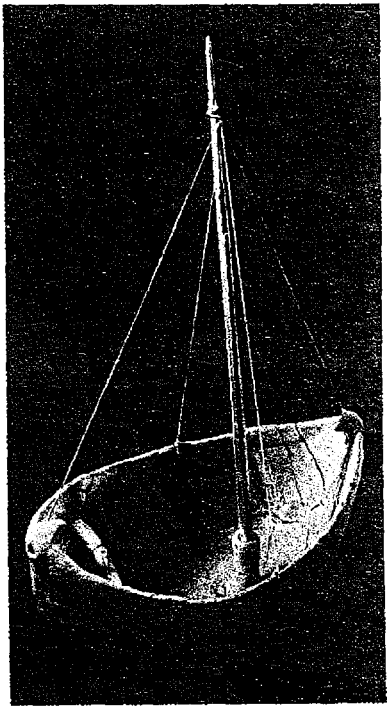
Finalmente el himno acaba con un banquete a Enlil, dios del cielo y padre de Enki, que ha invitado a todos los demás dioses. Enlil dice:

Grandes dioses que habéis llegado aquí...
Mi hijo ha construido una casa, el rey Enki,
Ha hecho que Eridu se levante como una montaña desde la tierra...
Ha construido su casa de plata adornada con lapislázuli.

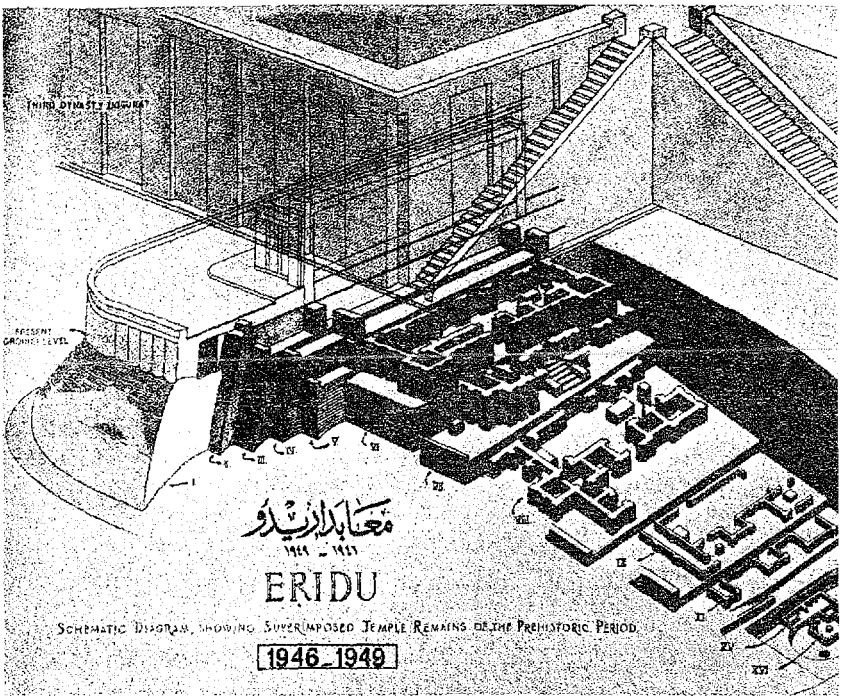
El Himno de Eridu, aunque fijado relativamente tarde, tiene sin embargo el ambiente de aquel período primitivo en que la materia, lo humano y lo divino estaban estrechamente relacionados: un período que tuvo mucho más en común con la prehistoria que con el punto de vista de hoy.



137. Templos y zigurat de Eridu: Fotomontaje de los varios niveles excavados, desde el zigurat (arriba) hasta el santuario más primitivo sobre suelo virgen.



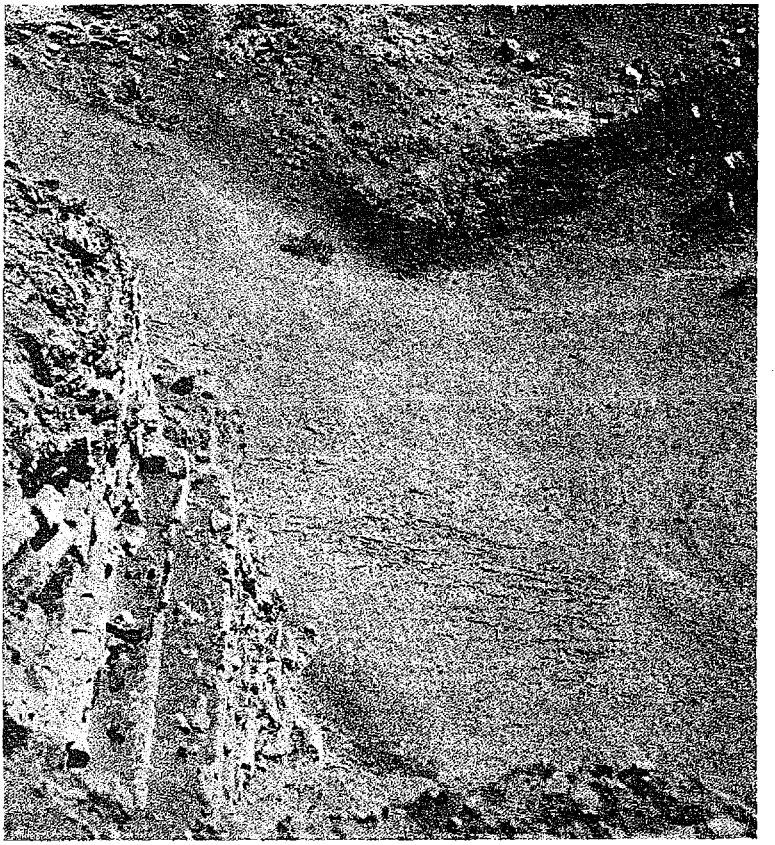
138. Barco de vela prehistórico: El modelo más primitivo que se conoce. Procedente de la tumba de un niño en el cementerio de Eridu, período de Al'Ubaid.



139. Templos y zigurat de Eridu: Dibujo de los niveles superpuestos. El Templo VII es el más interesante (véase la fig. 116).

Al disponer una residencia para un huésped divino, lo primero a tener en cuenta era su correcto emplazamiento. El problema más importante no era la construcción propiamente dicha sino la elección del lugar. Cuando iba a ser erigido un templo completamente nuevo era necesario, a través de toda la historia de Mesopotamia, descubrir primeramente los deseos de las deidades con respecto al lugar. Esto está expresado simbólicamente en el Himno de Eridu cuando el dios Enki traza el plano con su «sagrado estilo de caña».

Por esta razón, en lugares como Eridu fue hallada una serie de templos construidos uno sobre otro. Cada nuevo constructor se sentía tranquilizado por la aceptación divina del lugar. Más tarde los soberanos hicieron los mayores esfuerzos por localizar los documentos de las primitivas fundaciones, los cuales estaban grabados en cilindros, prismas y conos de arcilla cocida. El último rey de Babilonia, Nabonides (555-538 a. C.), cavó «dieciocho codos bajo el suelo del templo de Sippar» (Dhorme, 1949, pág. 184) para hallar los documentos fundacionales del constructor del templo, Naram-Sin, que había reinado diecisiete siglos antes.



140. El zigurat de Eridu en su estado actual; Vista desde la parte posterior, tomada en 1954.

Formas tardías del zigurat

La forma clásica del zigurat evolucionó poco durante las épocas babilónica, kassita, asiria, y finalmente neobabilónica. En efecto, el modelo tipo permaneció casi inalterado durante más de quince siglos.

André Parrot ha contado treinta y tres zigurats en veintitrés ciudades (1953; trad. ing. 1955, pág. 26), pero aquí trataremos solamente de dos de los largos períodos finales: Aqar Quf, de la época de los kassitas, y la neobabilónica Torre de Babel, Etemenanki.

Fuera de Mesopotamia continuaron construyéndose zigurats de entorno cada vez más complicado. Uno de los más hermosos es el zigurat de Choga Zambil, cerca de Susa, construido en el siglo XIII a. C. y excavado por R. Ghirshman *(Illustrated London News,* 13 de julio de 1957, pág. 76). Los lados de su base cuadrada miden 112 metros y el recinto exterior tenía tres puertas, una de las cuales, la Puerta Real, estaba guarnecida por cuatro torres de unos trece metros. Esta puerta conducía a un amplio antepatio que contenía una avenida de catorce mesas para sacrificios y una gran vasija para abluciones.

El zigurat de Aqar Quf

El templo-torre de Aqar Quf (hacia 1400 a. C.), a treinta y cinco kilómetros al noroeste de Bagdad, es uno de los pocos vestigios que han quedado de casi cuatrocientos años de dominio kassita sobre Babilonia y Sumer. Como mencionamos antes, los kassitas eran tribus guerreras de las montañas del Zagros que arrasaron la gran llanura de Mesopotamia con sus caballos y carros de guerra. Poco se sabe de ellos. Sus reliquias más extrañas son los mojones esculpidos —*kudurru*— que colocaban en los templos o en los campos para mantener el espacio inviolado.

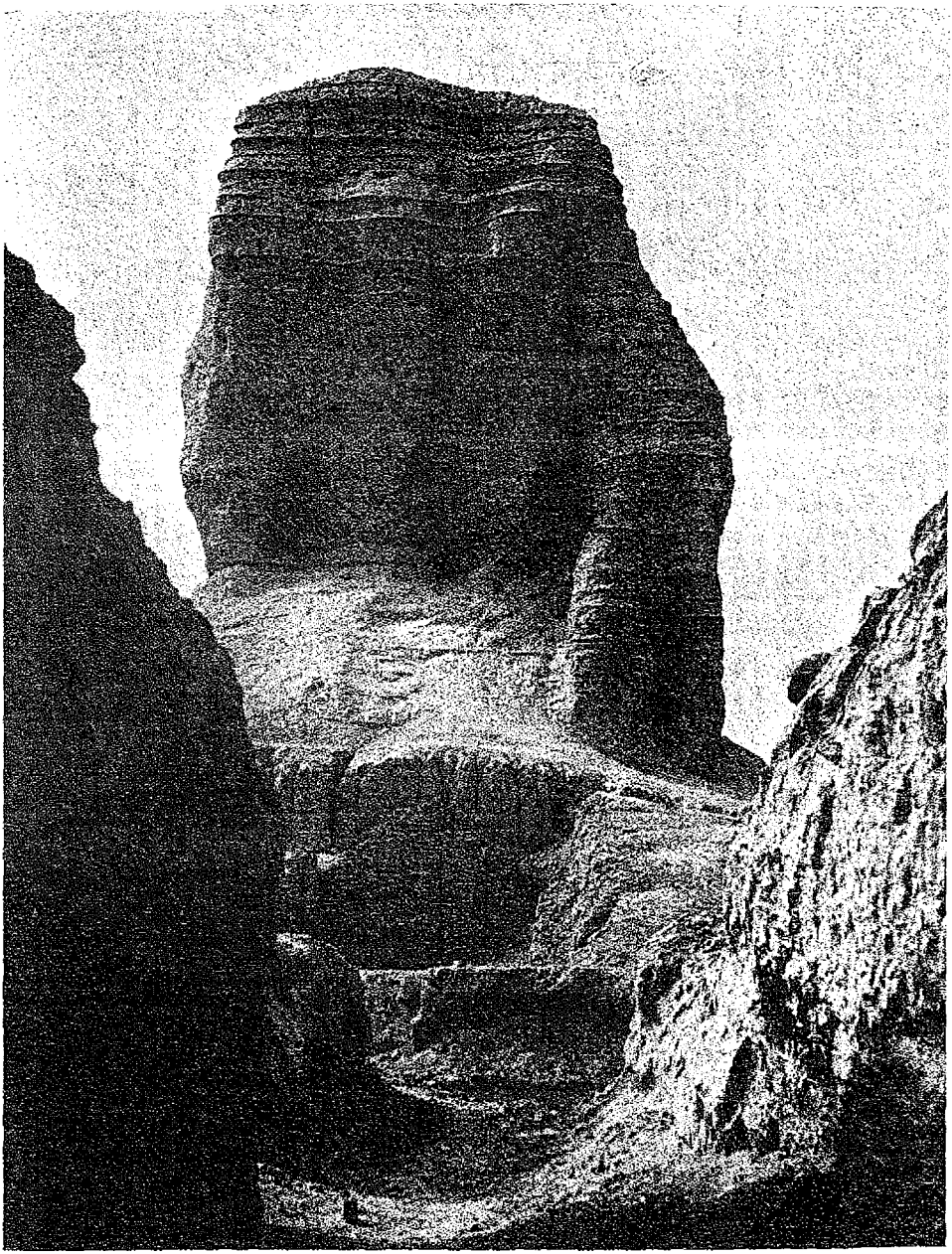
Una estela *kudurru* de hacia el siglo XV a. C., actualmente en el Museo de Bagdad, no sólo muestra la acostumbrada serie de sencillos símbolos divinos —el sol, la luna y las estrellas— sino que el espacio limitado por su redondeada parte superior se llenó de imágenes de zigurats y animales fabulosos que transmiten una impresión terrible a pesar de su encanto artístico.

El zigurat de Aqar Quf era el monumento más destacado de Dur Kurigalzu, el centro administrativo recientemente fundado, llamado así por el nombre de su constructor, Kurigalzu I. La extensa zona abarcada por esta ciudad tenía casi la forma de un barco. Las excavaciones realizadas por la Dirección General de Arqueología del Irak en 1942-1943 descubrieron los accesos al zigurat, sus escaleras y edificaciones vecinas, incluyendo el templo y el palacio (Baqir, 1944, páginas 5-10).

Esta torre está todavía bastante bien conservada. Los viajeros del siglo XVII creyeron que era la Torre de Babel. Incluso hoy, al acercarse a sus 57 metros de altura, alzándose repentinamente en las arenas del desierto, resulta impresionante. La planta es aproximadamente cuadrada: 69 × 67,6 metros. Es mucho más alta y empinada que los zigurats de Ur-Nammu, siendo su pendiente superior a uno por diez (9 cm por cada metro). Sus cimientos descansan directamente sobre la piedra caliza virgen.

La fotografía muestra el zigurat desde el sur. El acceso principal tenía lugar por una escalera central con dos escaleras laterales. Los tres nichos que tan fuertemente destacan en la fotografía no tienen relación con la estructura original.

No conocemos la forma exacta del zigurat de Aqar Quf, a pesar de su imponente altura. La asombrosa solidez de su estructura denota una larga experiencia. «Después de cada ocho o nueve hiladas de ladrillos hay una capa de entramado de cañas, fijada en unos 8 cm de arena y grava. Las cañas casi no están afectadas por el tiempo y todavía conservan una fuerte y dura textura, habiendo sido utilizadas



141. El zigurat de Aqar Quf: Pendiente muy pronunciada: 1 x 10 aprox.; altura: 57 m aprox. El único gran monumento que queda de casi cuatro siglos de dominio kassita; hacia 1400 a.C.

también para hacer cuerdas trenzadas de unos 10 cm de diámetro, las cuales, en cortos intervalos, corren rectas de lado a lado de la estructura y actúan como refuerzo» *(ibíd.*, pág. 6).

Las capas de cañas y los agujeros para las cuerdas son visibles en la fotografía. En principio esta estructura no se aparta de los métodos de construcción sumerios. También en Sumer la masa principal de la torre era construida a base de capas de ladrillos cocidos al sol y de entramados de cañas, utilizándose las cuerdas de caña tanto para drenar el agua como para refuerzo. La ejecución es notable y el declive de la pared más pronunciado que de costumbre. Recuerda más el aspecto pedregoso de los mojones kassitas que la sobria elevación uniforme de los zigurats sumerios.

Etemenanki: la «Torre de Babel»

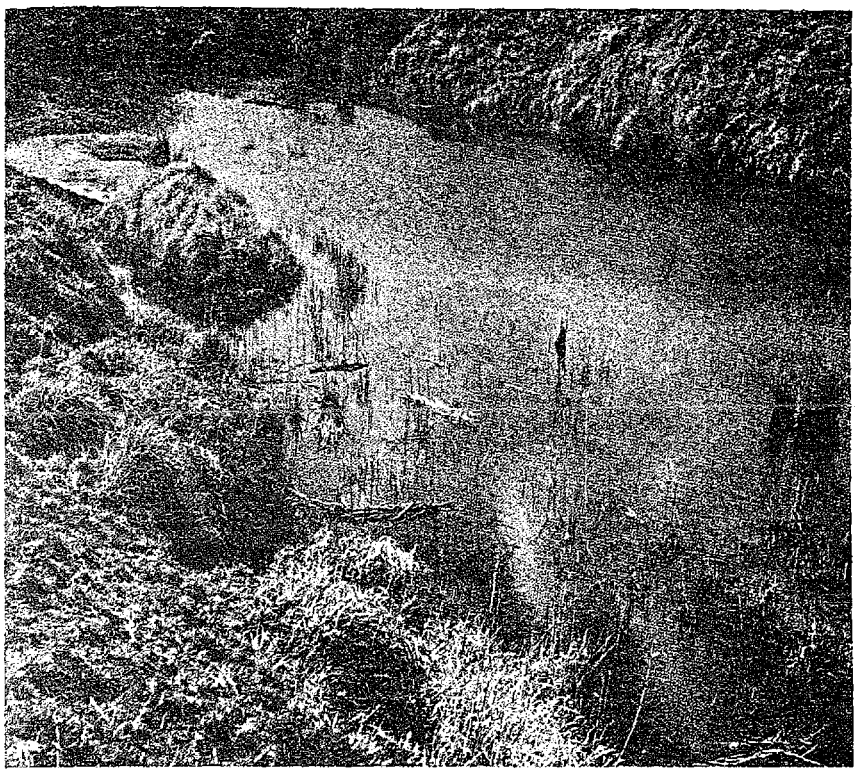
La forma escalonada del zigurat persistió. Pero el número de plataformas escalonadas, su altura y la profusión de adornos aumentaron rápidamente; y los zigurats fueron utilizados para ceremonias cada vez más complicadas.

El zigurat neobabilónico Etemenanki puede haber sido la Torre de Babel. Algunos estiman su altura en setenta y cinco metros y otros hasta en noventa. Pero aunque esto no puede establecerse con seguridad, da una idea de cómo la altura continuó aumentando durante la última fase de evolución del templo mesopotámico. Etemenanki tenía probablemente siete pisos. Sobre la plataforma superior fueron levantados uno o más templos. Su ornamentación era magnífica. Las terrazas escalonadas estaban revestidas con ladrillos vidriados, vivamente coloreados, cada terraza de un color diferente. Nada queda hoy de aquel esplendor excepto una charca de agua estancada. Cuando Robert Koldewey abandonó el lugar en 1917, los habitantes de la pequeña y vecina ciudad de Hilla arrancaron los ladrillos que quedaban de todas las superficies descubiertas.

El zigurat continuó siendo el centro de la vida religiosa a través de estos últimos períodos. Etemenanki se alzaba dentro de un *temenos* casi cuadrado, de unos cuatrocientos metros de lado. Fuera de este recinto se hallaba el templo Esagila. Ambos estaban dedicados al dios de la ciudad, Marduk.

Se podía llegar al zigurat por una *via sacra* realmente majestuosa construida para las fiestas de Año Nuevo, que tenían lugar en el equinoccio de otoño. Probablemente era el camino procesional más largo y ostentoso que haya sido construido jamás. Rebasaba los muros de dos lados del patio del zigurat, pasaba a través del primer puente de piedra tendido sobre el río Éufrates, atravesaba la Puerta de Ishtar, flanqueada por sus torres macizas, y discurría entre los brillantes ladillos vidriados de las paredes, adornadas con más de cinco mil animales en relieve. En esta fase el camino procesional se alzaba 12,5 metros sobre el nivel de la llanura y estaba pavimentado con losas de mármol blancas y rojas.

La excesiva suntuosidad es frecuentemente un subproducto del poder despótico, la inseguridad y el formalismo, de todo lo cual ofrecen estas ruinas una impresión casi insoportable. En el pequeño Museo de Babilonia está la gran maqueta que Koldewey hizo de esta ciudad, y la mirada busca en vano aquí, como en la



142. El lugar donde se alzaba Etemenanki (Torre de Babel): Solamente una charca mostrando el nivel del agua del subsuelo señala la posición del gran zigurat de Babilonia. Después de que Koldewey dejara de excavar en 1917, los habitantes de la ciudad vecina robarón todos los ladrillos de las paredes descubiertas.

devastada realidad exterior, algo que pueda dar reposo y satisfacción a la vista o al pensamiento. ¿Cuál es el valor de tan majestuoso camino procesional cuando se halla totalmente aislado, hundido en la trivialidad? Aun sin conocer su inminente fin, no puede por menos de sentirse esa incómoda sensación de esterilidad que tan frecuentemente se impone tan pronto como la pompa externa sustituye a la intensidad interior. Babilonia constituye un antiguo ejemplo de esto, tal vez el primero.

De 1899 a 1917, Koldewey solamente pudo descubrir el recinto sagrado hasta donde le fue posible e investigar sus monumentos, ya que muy pocas veces el trabajo de un arqueólogo ha estado tan obstaculizado por montañas de detritos. Mediante pozos profundamente excavados (Wetzel y Weissbach, 1938, lám. 5) —un tributo a la época que desarrolló los ferrocarriles subterráneos— se buscó trabajosamente la planta del templo Esagila. Pero la oscuridad reina todavía sobre la mayor parte de la ciudad, que se extiende sobre varios kilómetros cuadrados

bajo innumerables montículos de arena. Vagabundeando entre estos altozanos, aparentemente interminables, que cubren una ciudad enterrada de un millón de habitantes o más, es imposible rehuir el inquietante pensamiento de que fue ésta la primera vez que un destino siempre repetido hizo que una gran ciudad cayera en el más completo olvido.

La construcción como actividad regia

Solamente podremos comprender el contenido interno de la arquitectura primitiva si dirigimos nuestra atención al significado atribuido a la construcción como actividad. En los tiempos antiguos, la construcción estaba considerada como una tarea sagrada que exigía los niveles más altos de la imaginación humana. La aureola sagrada que rodeaba a esta actividad está simbolizada por el himno en el que el propio Enki, dios de las profundidades acuáticas, diseñaba su zigurat en Eridu. La construcción vinculaba al hombre con el dios. Tanto Gudea de Lagash como Ur-Nammu han dado pruebas de ello en documentos escritos y pictóricos.

Los cilindros-sellos de arcilla del rey-sacerdote Gudea reflejan una gran inquietud entre el pueblo sumerio. Las investigaciones recientes sugieren que los reinados de Gudea y Ur-Nammu coincidieron en parte. Gudea, muy preocupado, buscaba el emplazamiento y la planta correctos para un templo al dios de la ciudad, Ningirsu, hijo de Enlil, el dios de las tormentas. Esto le fue revelado en sueños en los cuales el dios transmitió sus deseos a Gudea, quien entonces «inclinó la cabeza» y cumplió el mandato.

El deseo de que los dioses intervinieran directamente inspiró la necesidad de construir. Los cilindros-sellos descubren la causa inmediata: «Una gran sequía. El caudal de las aguas no aumenta.» Luego sigue la promesa: «Cuando se hayan puesto los cimientos de mi templo llegará la crecida... fertilidad... aceite... lana... de la tierra agrietada brotará el agua» (Scharff y Moortgat, 1950, pág. 278).

Las numerosas estatuas de Gudea, de diorita y alabastro, figuran entre las obras más hermosas de la cultura neosumeria. La más grande de dichas estatuas, actualmente en el Louvre, muestra al rey-sacerdote como constructor de templos: se halla sentado, con el plano del templo, un estilo y una regla sobre las rodillas.

Ur-Nammu, el gran constructor de zigurats, fue también un reformador moral y social. El elaboró lo que Kramer, que lo descifró, llama «el código de leyes más antiguo conocido hasta ahora» (1956, pág. 49). Decimos «hasta ahora» porque las famosas trescientas leyes de Hammurabi de Babilonia, en la estela del Louvre, han sido desbancadas dos veces en los últimos años por códigos más antiguos. Las leyes de Ur-Nammu, conocidas fragmentariamente, aun así arrojan una luz lateral sobre la creciente humanización de los neosumerios. Estas leyes son «de especialísima importancia para la historia del desarrollo social y espiritual del hombre.

Ellas demuestran que, aun antes de 2000 a. C., la ley del 'ojo por ojo' y 'diente por diente'... había ya dado paso a un planteamiento más humano en el cual el castigo era sustituido por la multa» (pág. 50). Este fondo humano permite vislumbrar el carácter de la época que produjo la forma clásica del zigurat.

La estela de Ur-Nammu fue hallada en el antepatio del zigurat de Ur, esparcidos sus fragmentos sobre el pavimento. Aunque faltan muchos trozos, los que quedan bastan para dar testimonio de la mayor preocupación de este último período de Sumer: la construcción del zigurat de Ur. En la parte superior de la estela están los dioses todopoderosos en forma de las principales constelaciones, con el antropomorfo dios lunar sentado en su trono. En lo que queda del segundo registro pueden distinguirse dos figuras: el rey, con herramientas de construcción al hombro, y un acompañante.

La creencia de que el constructor regio, el hombre que mantiene la más estrecha relación con los dioses, debe trabajar con sus propias manos en la construcción, persistió hasta el final de la historia mesopotámica. E. Dhorme cita los textos de Nabopolasar, uno de los monarcas neobabilonios: «Por mi señor Marduk, para él, yo incliné la cerviz, plegué la ropa que viste mi realeza, y transporté ladrillos y arcilla sobre mi cabeza» (1949, pág. 187).

El significado del zigurat

Distintas son las opiniones en cuanto al significado del zigurat. La teoría según la cual los zigurats eran erigidos sobre las tumbas de reyes o dioses ha sido abandonada (el zigurat Etemenanki fue en otro tiempo considerado como la tumba de Marduk). Esta idea procedía de fuentes griegas y romanas.

Andrae, el brillante excavador de Asur, describió los zigurats como «montículos de tierra que los primitivos habitantes de esta llanura pantanosa, entretejida por brazos del río, erigieron como lugares de residencia tanto para los dioses como para los hombres, con objeto de protegerlos de los peligros de la inundación» (Lenzen, 1942, pág. 3). Esta explicación racional es fácilmente comprensible; la realidad de los hechos sólo fue advertida más tarde, después de las excavaciones realizadas en Uruk, Tepe Gaura, Eridu y otros sitios. En el período protohistórico de Al'Ubaid y en el siguiente período Dinástico Temprano, los templos fueron construidos sobre «altas terrazas», como las llamó Lenzen, encima de las ruinas amontonadas de antiguos templos, como en Eridu.

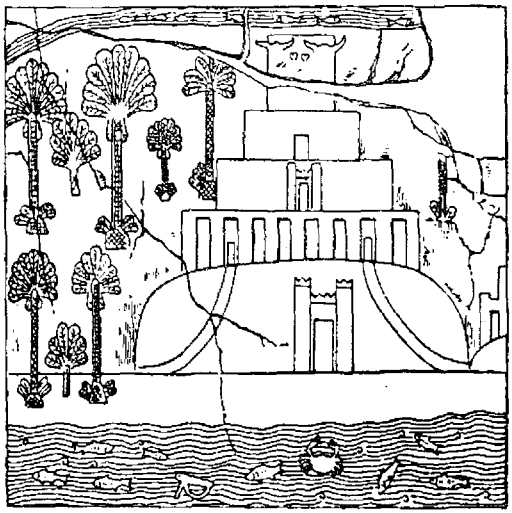
Como resultado de sus experiencias como excavador en Uruk, Lenzen no considera que los zigurats sean torres, sino que habla de ellos como «altas terrazas» o «terrazas escalonadas» (págs. 51-55). Lenzen excavó en el zigurat de Anu desde los cuatro lados y en los niveles arcaicos descubrió indicios de que ya habían sido cubiertas edificaciones anteriores antes de que Ur-Nammu levantara sobre ellas su zigurat de catorce metros de altura (lám. 10).

Zigurat y sacrificio

El significado del zigurat está estrechamente relacionado con los sacrificios rituales. En el período de Jemdet Nasr, mucho antes de que fueran construidos los zigurats, los altares en alto eran lugares de sacrificio. Un cilindro-sello de comienzos del tercer milenio, procedente de Susa, es la primera representación conocida de un santuario en forma de trono construido sobre una alta terraza donde indudablemente se halla representado un sacrificio. Un sacerdote-rey barbado, soberano de Susa, dispara sus flechas desde un arco curvo contra tres hombres (Amiet, 1953, pág. 28); los hombres son prisioneros que serían sacrificados a la deidad junto con el botín capturado. Las ofrendas desempeñaron también un papel importante en la religión egipcia, pero allí su papel principal consistía en proporcionar alimentos para los muertos o para los dioses.

Las estatuas reales —incluyendo las de Gudea— no eran, como las estatuas de los emperadores romanos, glorificaciones del soberano: eran intercesoras personales que estaban en el templo, a la vista del dios, para implorar larga vida para el rey. Los sacrificios tan profusamente ofrecidos en Mesopotamia estaban relacionados con el bienestar de los vivos, no de los muertos; y tienen ese carácter ya en épocas muy primitivas. Las vasijas más bellas hechas en la época de Al'Ubaid eran vasos libatorios, los llamados vasos de tortuga. Cada uno estaba formado por dos platos llanos, colocados uno sobre otro, con un largo y elegante pico acabado en un disco aplastado que aseguraba la ceremoniosa efusión del líquido.

Las ofrendas libatorias aparecen repetidamente en sellos y relieves. En una placa de piedra caliza procedente de Ur, unos sacerdotes desnudos vierten liba-



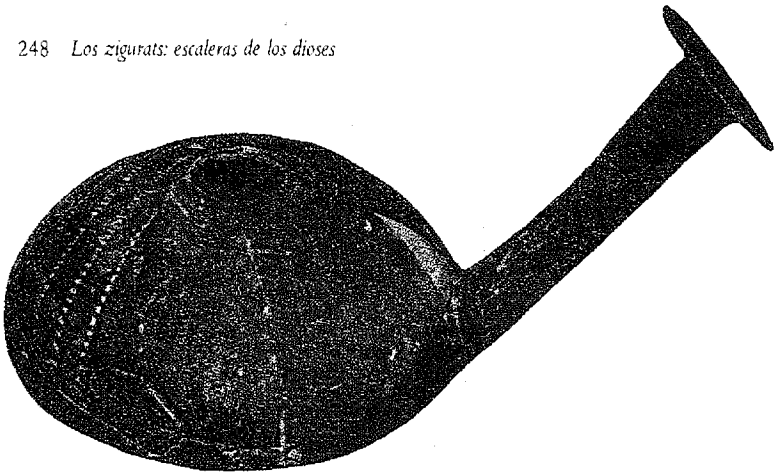
143. Representación de un zigurat: Relieve asirio hallado en Nínive. Siglo VII a.C. Tomado de Parrot.

ciones ante el dios lunar Nannar y sobre un altar. Los grandes complejos religiosos ofrecen muchas indicaciones del insólito significado de los sacrificios y las ofrendas en Sumer, incluyendo la quema de ofrendas para la prolongación de la vida terrenal y no en provecho de los que ya están en el otro mundo.

En Uruk no fue hallada ninguna señal de templos en los estratos arcaicos alrededor del zigurat de Anu: «En su lugar apareció otro fenómeno notable. En el primitivo período de Jemdet Nasr aparecieron lugares de sacrificio en tres sitios que estaban unidos unos a otros por largos espacios» (Lenzen, 1942, pág. 12). Estos lugares de sacrificio fueron examinados y catalogados estrato por estrato (láms. 4-9). Se alineaban uno tras otro, en forma de largas artesas. Después fueron agrupados en una serie de celdas rectangulares en las cuales eran quemadas las ofrendas. Estas eran tan abundantes que el lugar parece casi un matadero. En Ur fueron halladas cámaras llenas de cenizas de madera en el patio del zigurat. Al principio se tomaron por «cocinas del templo», pero desde entonces la opinión se ha inclinado a creer que eran los lugares donde se quemaban las ofrendas. Este impulso sacrificial está también expresado en la forma del zigurat, el cual se alza contra el cielo como un gigantesco altar de sacrificios. No es seguro que hubiera templos sobre cada terraza. Lenzen, por ejemplo, no halló huellas de ellos en un lugar tan sagrado como el zigurat de Anu en Uruk.

El zigurat aparece representado como un alto altar en un relieve asirio, frecuentemente reproducido, del siglo VII a. C., parte del cual está en el British Museum y parte en el Louvre. Representa una forma casi clásica de zigurat con cuatro pisos. El más alto tiene un par de cuernos en cada una de sus cuatro esquinas. «Este último detalle es de la mayor importancia, puesto que no sólo confiere un indudable carácter religioso al monumento, sino que, de hecho, lo asemeja a un altar gigantesco. Es sabido que los altares estaban efectivamente provistos de cuernos en las cuatro esquinas, una de cuyas finalidades consistía en garantizar completa inmunidad a cualquiera que se agarrara a ellos» (Parrot, 1953). Y Dhorme señala: «En este último detalle... el zigurat se aproxima a los altares provistos de cuernos, cuya función conocemos no sólo en Israel sino también en Micenas y Creta. Por consiguiente el zigurat puede ser considerado como un lugar elevado donde, de vez en cuando, podían llevarse a cabo sacrificios» (1949, pág. 179).

No existen descripciones de los rituales desde el período sumerio hasta el final de la historia mesopotámica. Solamente a partir de un texto seleúcida (Uruk) podemos hacernos una idea de cómo se desarrollaba el sacrificio sobre un zigurat. El texto, que trata del zigurat de Anu en Uruk y que está traducido por Falkenstein, dice: «En la primera ronda nocturna, sobre el tejado del alto templo del zigurat... cuando (la estrella de) el gran Anu aparece en el cielo», se dispone un banquete sobre una mesa dorada, para Anu y Antum (su mujer), así como para los siete planetas, y se dan instrucciones muy concretas para este agasajo del dios del zigurat: carne de vacuno, cordero y aves, cerveza de primera calidad y «vino exprimido vertido de una jarra de oro», así como toda clase de frutas, miel y especies aromáticas que «serán esparcidas sobre los siete incensarios de oro». Desgraciadamente no se sabe hasta qué punto esta descripción es aplicable al período primitivo (1941, pág. 29).



144. Vasija libatoria procedente de Eridu: Estos vasos «tortuga» figuran entre la más hermosa cerámica del período. Llevan pintados pequeños puntos blancos y, sobre el pico, un triángulo blanco: un símbolo de la fertilidad que se remonta a las más antiguas tradiciones prehistóricas. Período de Al'Ubaid, cuarto milenio.

145. Placa de piedra caliza procedente de Ur con perforación central. Utilizada como soporte para un objeto votivo. Parte superior: un sacerdote desnudo vierte una libación ante el dios lunar Nannar, sentado. Parte inferior: un sacerdote desnudo vierte una libación sobre un altar ante un templo o zigurat.

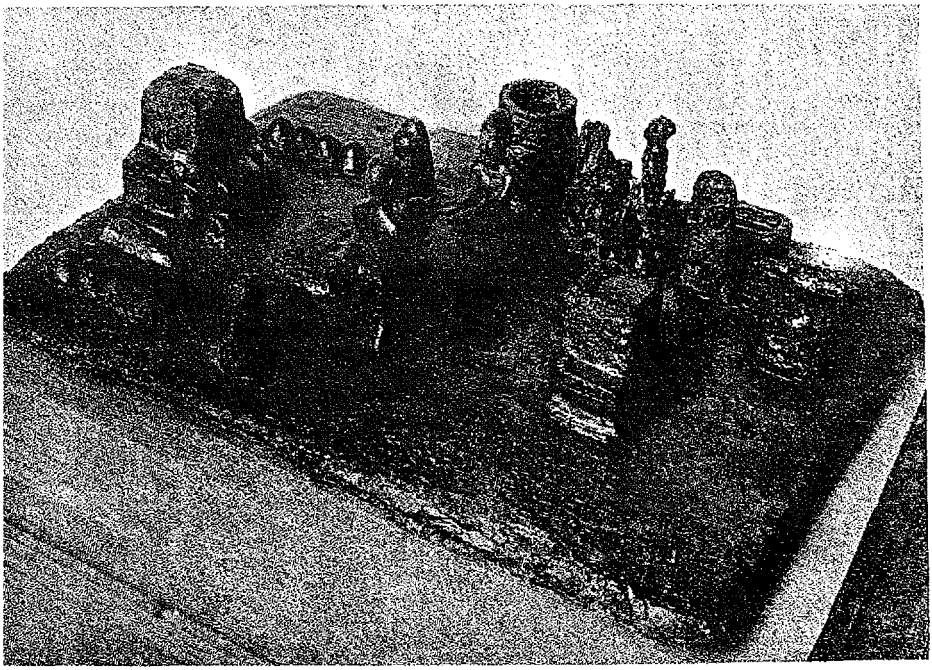
Los ritos mesopotámicos se prolongaron durante muchos siglos, y es poco probable que se inventaran ritos nuevos en la agonía de una cultura declinante. Parrot ha supuesto por lo tanto, con toda justificación, que los ritos seleúcidas «están casi con seguridad relacionados con creencias muchísimo más antiguas» (1953; trad. ing. 1955, pág. 62).

Poco a poco se ha prestado atención al significado simbólico del zigurat. Falkenstein, que descifró las tabletas de arcilla más primitivas de Uruk, cree que no deberían aceptarse explicaciones demasiado restringidas o demasiado simples, puesto que «todavía tenemos muy poca información sobre el significado cultual de los zigurats» (1941, pág. 28).

Los nombres que ostentan los diferentes zigurats —«Casa de la Montaña, Montaña de la Tormenta, Lazo entre el Cielo y la Tierra» (Frankfort, 1954, pág. 6) —implican que creaban un vínculo entre el cielo y la tierra.

Durante los imperios asirio y babilónico, la relación de los zigurats con el simbolismo cósmico pasa a primer plano. Las siete terrazas de Etemenanki, cada una de un color diferente, se suponía que estaban relacionadas con las esferas de los siete planetas. Pero estas posibles indicaciones astrológicas tienen, de hecho, poca relación con el significado original del zigurat.

Frankfort relaciona la idea del zigurat con la idea de la «montaña» sagrada, la cual, dondequiera que se alzara, señalaba el centro del mundo. «El significado del



146. Bronce votivo: Escena de ofrenda ante un zigurat. Procedente de Elam.

zigurat era simbólico, y el simbolismo podía expresarse de distintas maneras. La misma idea que estaba inequívocamente expresada en una alta montaña artificial, podía también representarse por una simple plataforma de unos pocos pies de altura», y las más primitivas plataformas de los templos «representaban ya la 'montaña' sagrada» (*ibíd.*, pág. 7).

Inclinarse por un significado único del zigurat supone desintonizar completamente con la mentalidad de la época. Varias ideas se entrelazan en el fenómeno: la roca como lo primero que emerge del caos primigenio; la montaña que, dondequiera que se alce, representa el centro del universo; el trono terrenal del dios; y —lo que parece estar más cerca del concepto sumerio de la vida— el zigurat como lugar monumental para el ofrecimiento de sacrificios. Así como la mayor parte de los símbolos de la prehistoria giraba alrededor de la idea de fertilidad, así la mayor parte de los conceptos de la cultura sumeria y de las que le sucedieron giraba alrededor de la idea de sacrificio.

Séptima parte:
Los comienzos de la arquitectura en piedra y el *ka*: Egipto

La relación egipcia con la piedra

Uno de los mayores triunfos de la civilización egipcia consistió en separar la piedra de la roca y hacer de ella un material de construcción no superado hasta ahora. La elección de un material tan duro, que exigía mucho trabajo y una gran destreza para darle la forma deseada, se basaba directamente en las convicciones religiosas egipcias.

El anhelo de un material eterno estuvo siempre presente en los sentimientos íntimos de los egipcios, y el uso de la piedra se remonta a su prehistoria, es decir, al período predinástico. Vasijas de piedra —jarras, cuencos y vasos de la piedra más dura, tal como basalto, porfirita y diorita— han sido halladas en tumbas prehistóricas, habiendo alcanzado ya su máxima perfección en la I Dinastía. En la tumba de una reina en Saqqara, Emery halló en 1955 tres platos transparentes de cristal de roca, de 15 a 20 centímetros de diámetro, y uno de ellos de menos de dos milímetros de espesor (1956, fig. 7).

La piedra, el material menos perecedero, estaba al principio reservada para los muertos, negándose su uso para los vivos durante mucho tiempo. Sus cualidades duraderas hicieron de ella la materia ideal para edificar lugares de reposo para los difuntos, siendo la tumba la que dio origen a la primera arquitectura en piedra. Su temprana evolución constituyó un largo proceso que continuó a lo largo de las primeras dinastías. Luego, como una bomba, una radiante arquitectura en piedra aparece repentinamente en todo su esplendor, a comienzos de la III Dinastía, en el complejo funerario de Zoser, en Saqqara.

Preludios en arcilla: las mastabas del norte de Saqqara

Saqqara está situada al sur de El Cairo, a una hora escasa de automóvil. En ningún otro lugar de Egipto, a lo largo de los milenios, han hallado tantos difuntos un lugar de reposo como aquí, en las proximidades inmediatas de la antigua capital, Menfis. Hace mucho tiempo que esta ciudad desapareció debajo de las tierras de cultivo. De su aspecto, de sus templos y palacios, e incluso de su extensión, solamente ha quedado una vaga idea. Los ladrillos sin cocer con los cuales fue edificada se han pulverizado.

Todo lo que queda es la necrópolis al borde del desierto: Saqqara. En todas partes se tiene conciencia del paso de los milenios. En las crestas de las dunas hay vestigios de todas las dinastías, muchos de ellos todavía sin excavar. Se encuentran huesos humanos, blanqueados y reducidos a una frágil cáscara que, cuando se los levanta, se deshacen como los filamentos de una bombilla. Dominando el panorama de la quebrada llanura desértica hacia el sur, se yergue la silueta de la pirámide escalonada del rey Zoser, que señaló el comienzo de la era de la pirámide. En un extremo de la necrópolis, al norte de Saqqara, hay una larga fila de grandes mastabas de reyes o altos funcionarios de la I Dinastía.

Reisner abre su monumental *Development of the Egyptian Tomb Down to the Accesion of Cheops* señalando que desde sus mismos comienzos la tumba egipcia tuvo una doble función, siendo tanto un lugar de enterramiento como un lugar de ofrendas (1936, pág. 1).

Hasta el final del período predinástico, las tumbas egipcias eran simplemente hoyos o pozos circulares u ovalados poco profundos, en los cuales los difuntos eran enterrados encogidos, exactamente como fueron enterrados en largos períodos prehistóricos. «Junto a estas tumbas en forma de pozos, en el mismo cementerio... se produce el primer tipo perfeccionado de tumba egipcia, el pozo abierto revestido con ladrillo de barro y con techo de madera y ladrillo del mismo tipo» (pág. 5). Luego, al igual que las casas, estas tumbas se hicieron gradualmente rectangulares y también más profundas, más grandes y con subdivisiones, hasta formar una subestructura muy complicada.

A la subestructura subterránea se añadió una superestructura sobre tierra. Su forma era distinta en el Alto y el Bajo Egipto. Herbert Ricke explica esta diferencia como consecuencia de dos diferentes modos de vida. En la fértil zona del delta del norte (Bajo Egipto), los primeros agricultores vivían en pequeños poblados (Fayum, Merimde). Sus difuntos eran enterrados bajo el suelo de las viviendas o en tumbas modeladas como las casas de los vivos. En el sur (Alto Egipto) habitaban pastores nómadas que enterraban a sus difuntos en la grava, colocando encima un pequeño montón de piedras o túmulo.

W.S. Smith comenta a propósito de este contraste: «hay que distinguir entre los nómadas del sur, con sus viviendas en forma de tiendas de campaña y sus tumbas constituidas por simples montículos, y los sedentarios habitantes del norte, que construían en ladrillo y cuyas tumbas eran repetición de sus casas. Esto deja poco lugar a las posibilidades de desarrollo en los pueblos y aldeas de las comunidades agrícolas, las cuales debían de exceder en número a los elementos nómadas arriba y abajo del valle del Nilo» (1958, pág. 24). Pero hasta el final de la historia egipcia se mantuvieron las costumbres más primitivas y no parece haber duda de que, en esencia, la hipótesis de Ricke está estrechamente relacionada con los hábitos mentales de los egipcios.

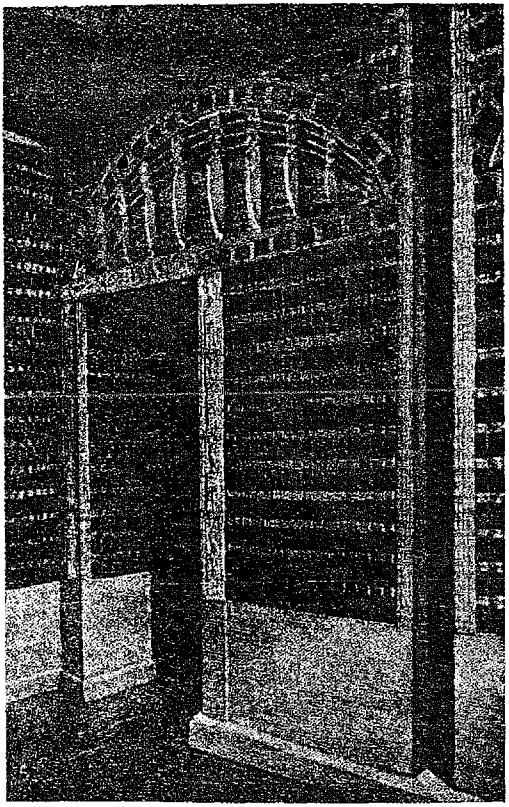
En el norte, la superestructura adquirió gradualmente una forma baja y plana, con las paredes inclinadas y revestidas con paneles: la mastaba (en árabe «banco»).

La introducción de la piedra como material de construcción puede seguirse en las tumbas de las necrópolis de Abydos, Heluán y Saqqara, de las Dinastías I y II.

Entre más de un millar de tumbas del cementerio de Heluán había algunas en las cuales los postes de madera y las paredes de ladrillo secado al sol habían sido parcialmente sustituidos por losas de piedra. Heluán no tenía tumbas reales. Era un cementerio para el pueblo llano.

En una mastaba en la escarpa del norte de Saqqara fueron hallados sólidos bloques de piedra, a manera de rastrillo, al pie del pasillo descendente, protegiendo al difunto de los intrusos. Había dos rastrillos, uno detrás de otro.

Las grandes mastabas de los reyes de la I Dinastía fueron descubiertas en el lado opuesto del Nilo, en Saqqara, por Emery, a partir de 1935. (Anteriormente se habían llevado a cabo excavaciones, pero las circunstancias no permitieron completarlas). Las mastabas se extienden en el límite norte de la enorme necrópolis, la cual se prolonga hacia el sur, más allá de la pirámide y complejo funerario del rey Zoser. Las esmeradas y meticulosas clasificaciones de Emery nos han proporcionado una nueva visión de los diferentes períodos de la I Dinastía. Se han

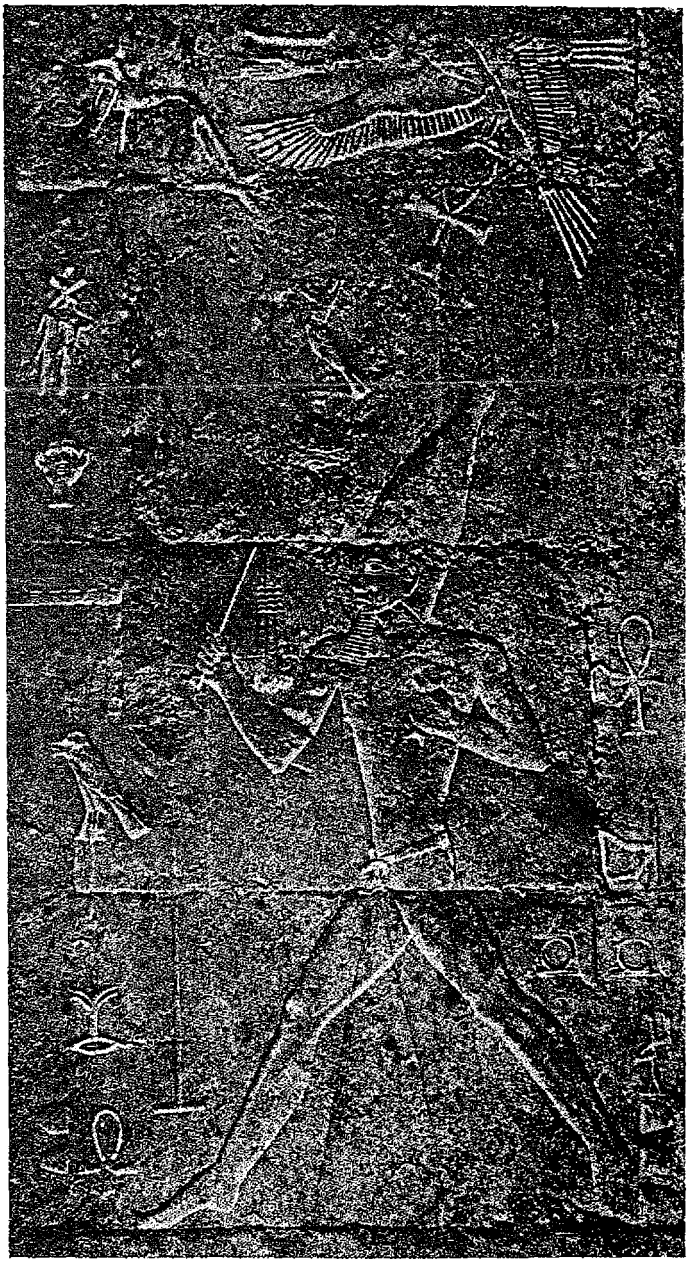


147. Pared de la cámara subterránea de Zoser: Los azulejos azules imitan un entramado de cañas. Los jeroglíficos del djed *en el arco simbolizan la duración eterna. Saqqara. Tomado de Firth y Quibell.*

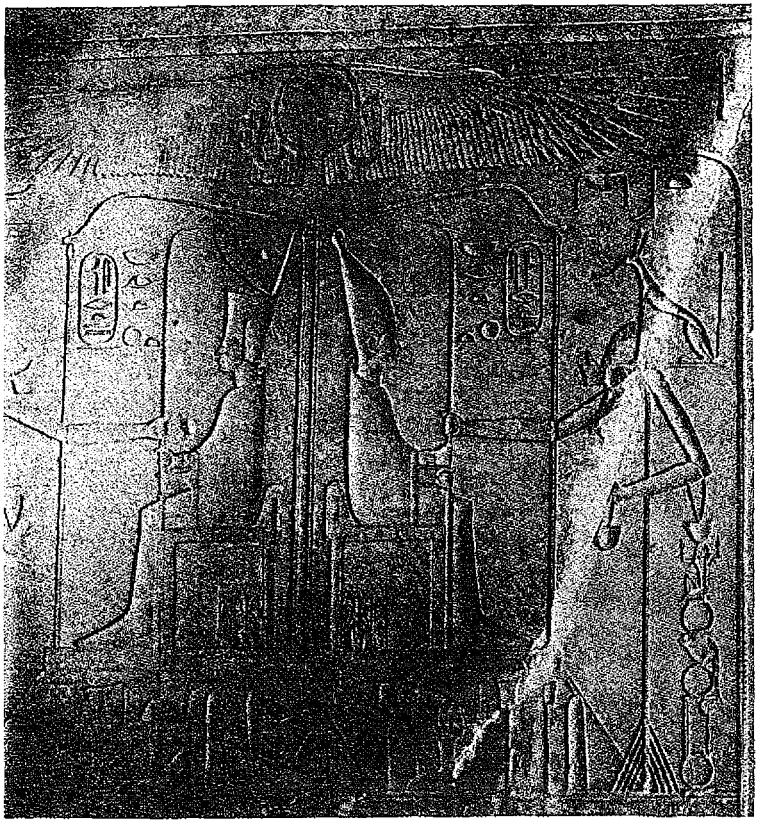
llenado muchos vacíos y contestado muchas preguntas. Pero otras muchas continúan sin respuesta.

La espléndida serie de tumbas reales proporcionó una inesperada visión de la primera evolución de la mastaba. Los tres volúmenes de Emery, profusamente ilustrados con excelentes dibujos axonométricos, ofrecen un caudal de información que aquí solamente vamos a resumir.

El modelo de mastaba siempre fue el mismo, pero la tumba se hizo progresivamente más grande y más complicada. La superestructura era construida con ladrillos secados al sol, con paramentos y grandes contrafuertes en la forma conocida como fachada de palacio. En la tumba 3503 la superestructura estaba revestida «de argamasa cubierta con estuco de yeso blanco» (1954, II, pág. 129). Estos blancos nichos reforzados eran una forma embrionaria de la enorme muralla de piedra caliza con la cual el rey Zoser rodeó su recinto funerario.



148. Relieve de la cámara subterránea de Zoser: El rey Zoser realizando su carrera ceremonial. Saqqara. Tomado de Lange y Hirmer.



149. Relieve del festival del Heb-Sed del rey Sesostris III en un dintel: Un punto culminante del festival consistía en la nueva coronación del rey en los tronos del Alto y del Bajo Egipto (derecha e izquierda respectivamente). Imperio Medio.

Los muros exteriores que rodeaban las mastabas eran planos, desprovistos de articulación. Fuera de ellos había cementerios secundarios de sirvientes sacrificados para servir al rey en la otra vida. La tumba de la reina Merit-Neit (tumba 3503) estaba rodeada por veintidós enterramientos secundarios. «Esta costumbre bárbara no sobrevivió en los usos funerarios de la II Dinastía» (1958, III, pág. 98). Bárbara como era, jamás fue aplicada a la misma escala que en el pozo de la muerte de la reina Shubad en Ur, algunos siglos después. Más allá de las tumbas, en algunos casos, fueron hallados vestigios de una barca solar.

La subestructura fue progresivamente subdividida, hasta incluir cerca de cincuenta cámaras y almacenes: una costumbre todavía conservada en los alojamientos subterráneos de las tumbas de Zoser. Una fotografía de una mastaba del reinado de Udimu (tumba 3506) muestra el pozo central abierto en la roca de la

subestructura y una puerta de piedra al pie de un tramo de escaleras que descienden al pozo desde el nivel del suelo. Las paredes interiores, con contrafuertes, de la superestructura son también visibles.

Aunque transformada su estructura interior, las mastabas nunca cambiaron en cuanto a su forma general. Pero uno de los inexplicables saltos de la imaginación humana se produjo a comienzos de la III Dinastía, cuando Imhotep, inspirado por su genio, levantó una larga estructura vertical y utilizó la piedra como material de construcción.

Imhotep, el constructor

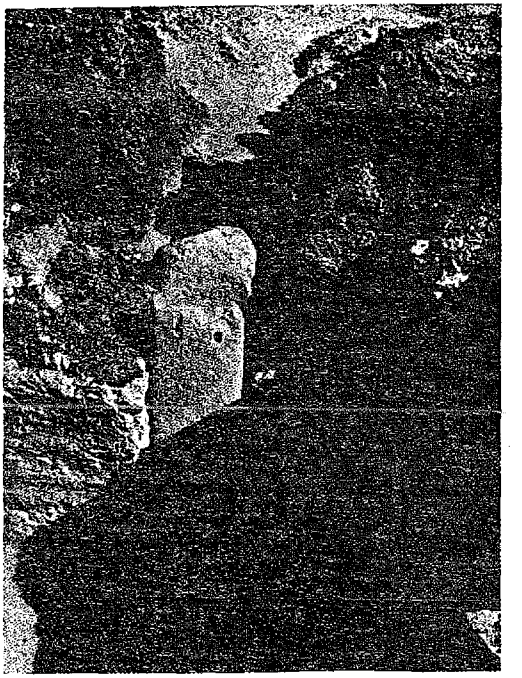
Una figura casi mítica, pero histórica, preside el nacimiento de la arquitectura en piedra: Imhotep. Dos milenios después de su muerte fue elevado al rango de dios de la curación. Mientras vivió, Zoser le confió el cargo más alto del país. Fue gran visir, «juez principal», «supervisor de los archivos reales», «portador del sello real», «jefe de todas las obras del rey», «supervisor de lo que el Cielo da, la Tierra crea y el Nilo produce», «supervisor de todas las cosas en todo el país» (Hurry, 1928, págs. 6-7). La universalidad de Imhotep, apenas concebible en períodos posteriores, solamente podía darse en las primeras etapas de una civilización arcaica, cuando todo había de ser primeramente inventado y luego organizado.

Aunque la existencia de Imhotep nunca había sido puesta en duda, la primera prueba directa de la misma salió a la luz en 1925-1926, cuando el complejo funerario de Zoser fue rescatado lentamente de la arena y los escombros. Cerca de la pirámide escalonada, Firth descubrió restos de una estatua del rey Zoser, en cuya base unos jeroglíficos de bella factura dan información directa de la existencia de Imhotep. «Comienzan con una serie de títulos seguidos por el nombre de su poseedor, llamado Imhotep... El Canciller del Rey del Bajo Egipto, Jefe inmediatamente inferior al Rey (¿del Alto Egipto?), Administrador de la Gran Casa, Noble Hereditario, Sumo Sacerdote heliopolitano, Imhotep» (Gunn, 1926, pág. 192).

Queda establecida la rara combinación de poderes de Imhotep como organizador, estadista y espíritu creador. Además, como reza la inscripción, fue sumo sacerdote de Heliópolis. No sabemos si el título de sumo sacerdote existía antes de la III Dinastía, pero la primera mención registrada «que se conoce parece ser la del famoso fragmento de la estatua de Zoser de la pirámide escalonada» (Baumgärtel, 1955, pág. 8).

El sacerdocio, la curación mágica y la medicina estaban estrechamente interrelacionados en el antiguo Egipto, conteniendo los tres los mismos elementos básicos. Se trata de un vestigio de la cultura prehistórica.

Los griegos hicieron semidioses de los héroes bélicos, y los egipcios de los sabios. La reputación de Imhotep como curador mágico fue mucho mayor y más duradera que su reputación como organizador, estadista o arquitecto. En el Imperio Antiguo, no mucho después de su muerte, fue reverenciado como semidiós de la curación mágica y de la medicina. Estatuillas suyas existentes en muchos museos lo presentan con los distintivos de un dios: «La condición de semidiós parece que duró desde el reinado de Micerino hasta los comienzos del período per-

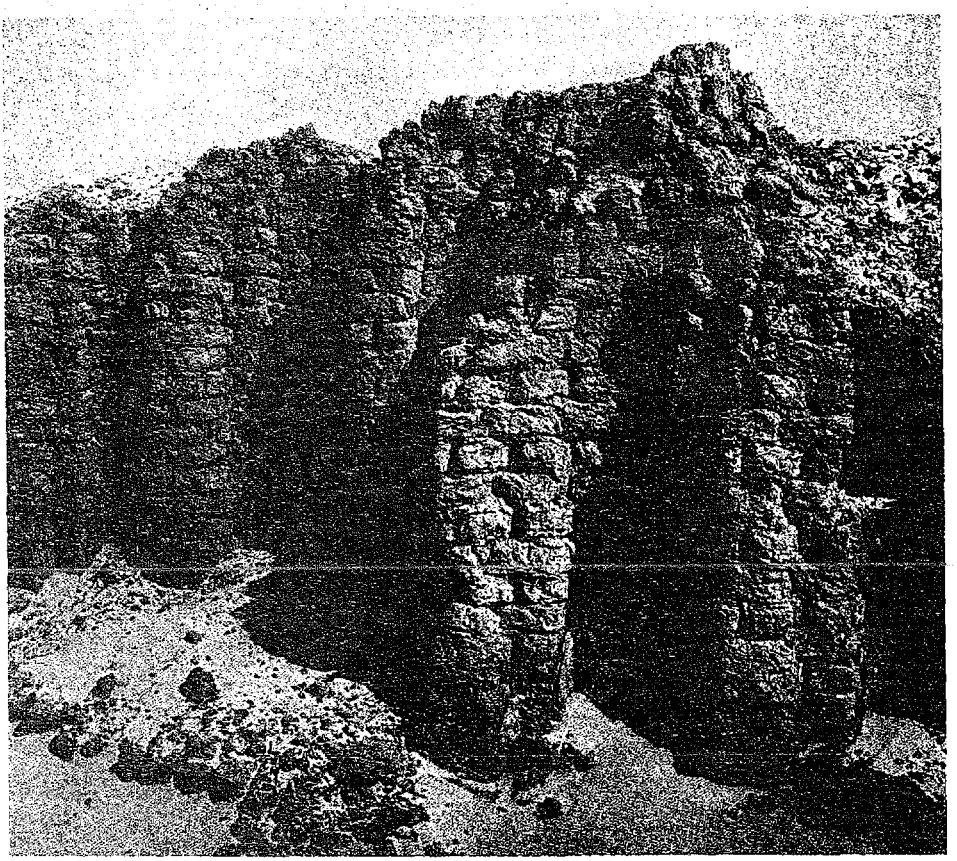


150. Rastrillos de piedra en la entrada de una mastaba: Dos pesados rastrillos de granito al pie de la escalera que arranca desde el nivel del suelo guardan la entrada a la subestructura de la tumba 3500 del norte de Saqqara. I Dinastía.

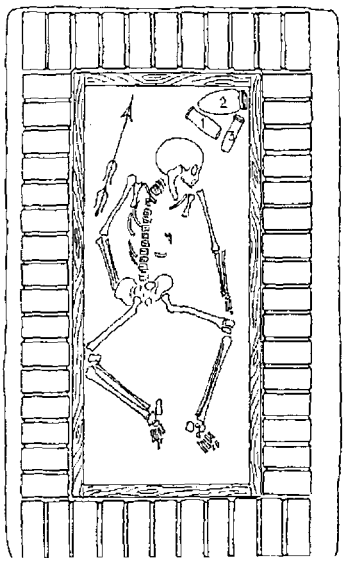
sa» (Hurry, 1928, pág. 56): más de dos milenios. Finalmente, en el tardío período saíta, cuando se produjo un renacimiento de los cultos y de las artes del Imperio Antiguo, Imhotep fue elevado al rango de dios de la medicina, o, más exactamente, de las artes mágicas curativas. Como tal formó parte de una trinidad que incluía a Ptah, el dios menfita de la creación, y a su mujer, Sekhmet, diosa de la fertilidad con cabeza de leona.

El título de dios de la medicina conferido a Imhotep debe emplearse con cuidado, ya que, como Maspero advirtió hace mucho tiempo, «Imhotep fue divinizado en virtud de sus poderes como mago» (Hurry, 1928, págs. 69-70, citando a Maspero), es decir en virtud de sus artes mágicas empleadas como terapia.

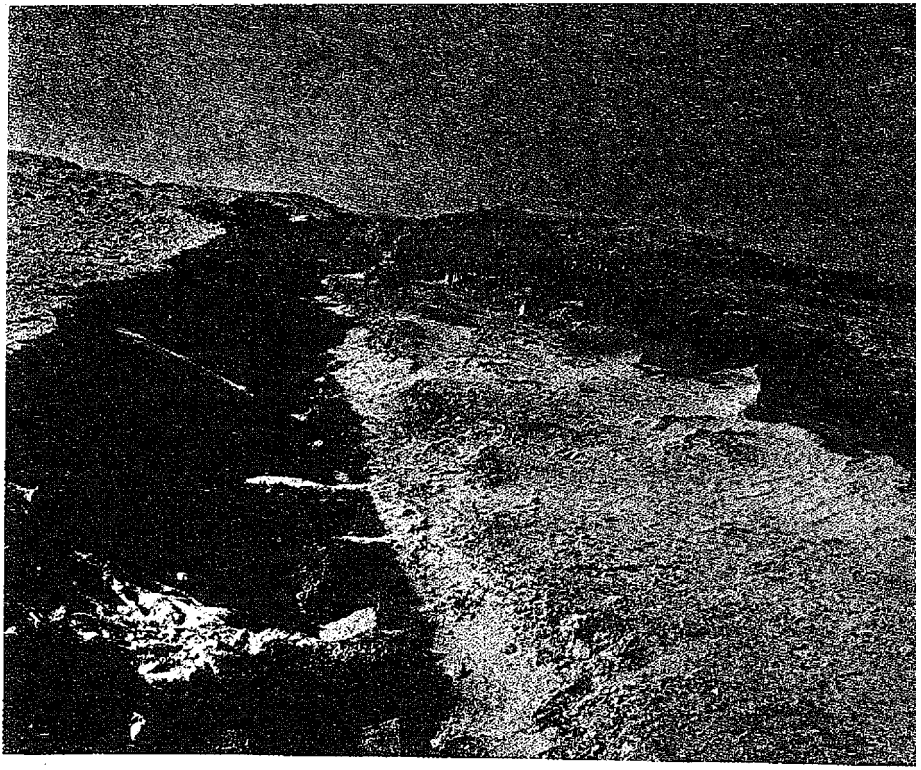
El único testimonio tangible que tenemos de Imhotep es su arquitectura. Una tradición de tan larga vida como la de sus poderes de curación mágica lo acredita como arquitecto del complejo funerario de Zoser. La primera confirmación de ello fue la inscripción hallada por Firth. La segunda es una inscripción hallada en Wadi-Hammamat, un valle en la ruta de las caravanas desde Coptos hasta el mar Rojo, la cual registra veinticinco generaciones de arquitectos que se remontan a Imhotep, el hijo de Kanofer, «jefe de las obras del Sur y del Norte del país» *(ibíd.,* pág. 193).



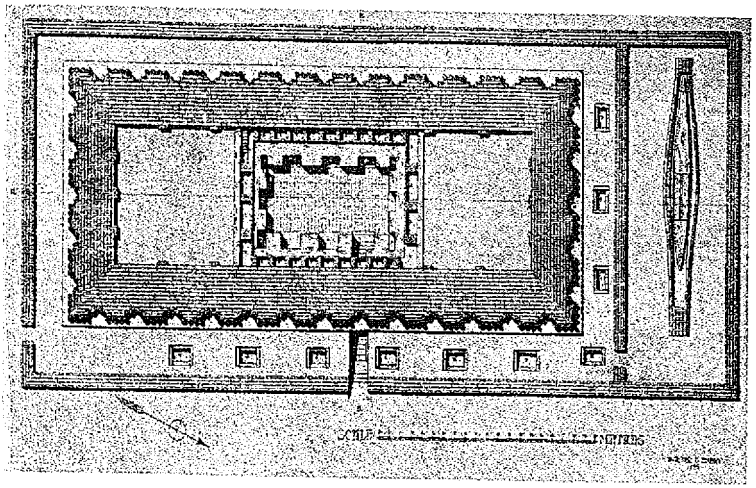
151. Paredes modeladas de una mastaba: La superestructura de la tumba está cerrada por revestimiento de ladrillo esmeradamente moldeado y construido en forma de nichos como el empleado en Mesopotamia. Tumba 3503, norte de Saqqara, I Dinastía.



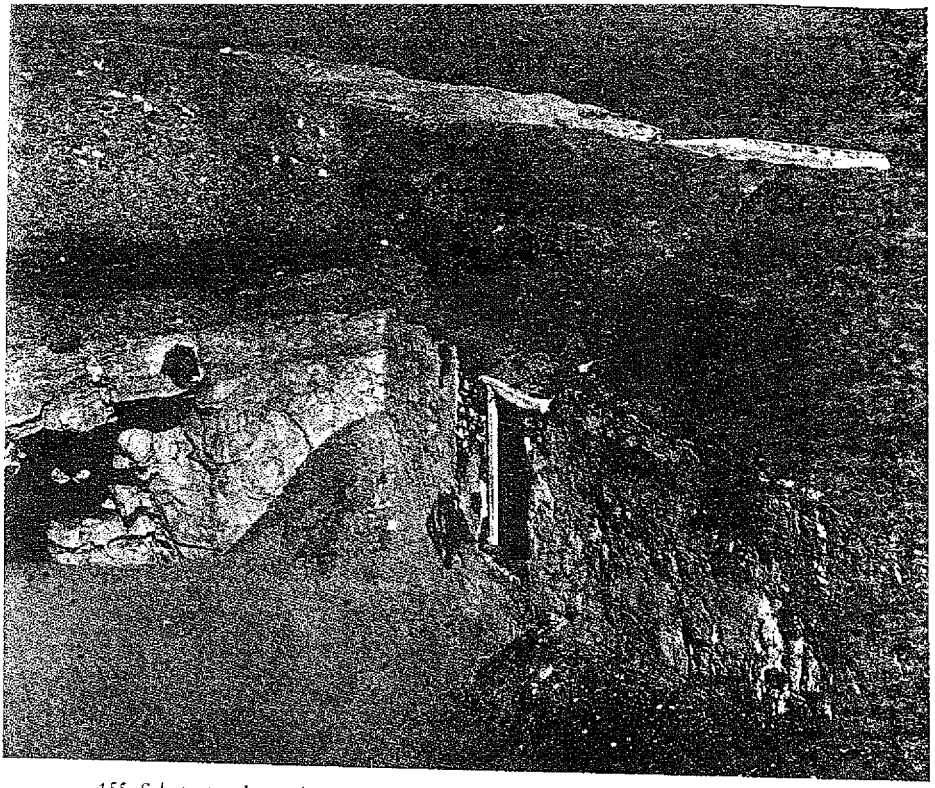
152. Tumba secundaria con un siervo sacrificado: Tumba 3506, norte de Saqqara. I Dinastía. Tomado de Emery.



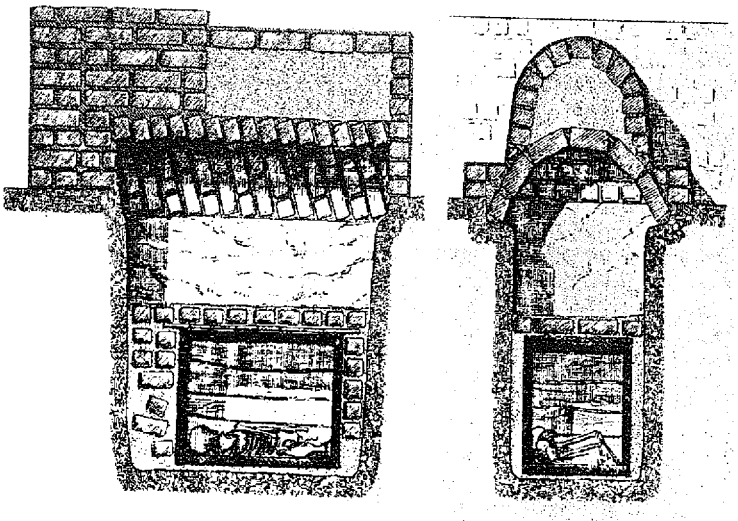
153. Mastaba y tumbas secundarias: Vista de las paredes modeladas de la Tumba 3506 (65 x 25 m), con tumbas secundarias en primer plano.



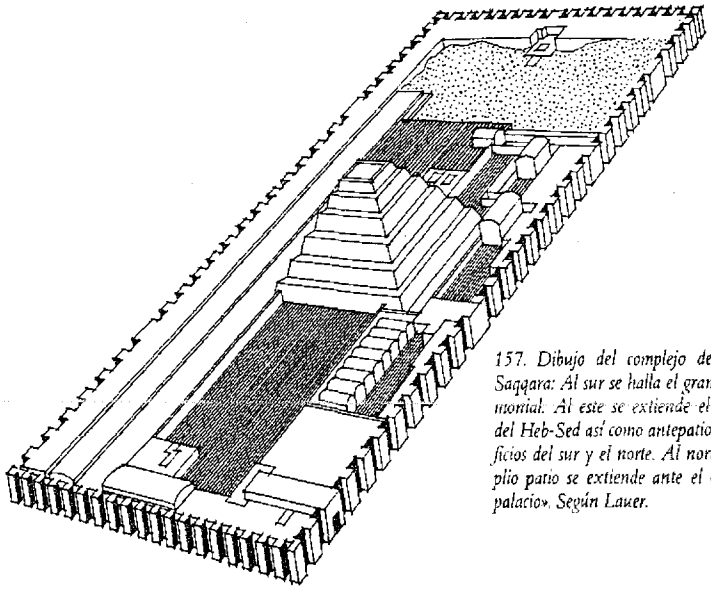
154. Planta de mastaba: Plano de la Tumba 3506 con diez tumbas secundarias y una tumba en forma de barca, todo dentro del mismo recinto cerrado. Las escaleras centrales, descendentes, conducen a una puerta de piedra. Tomado de Emery.



155. Subestructura de mastaba: Las jambas y el dintel de la puerta de la Tumba 3506 desde dentro de la subestructura.



156. Secciones de tumba abovedada secundaria: Dibujos de uno de los enterramientos secundarios de la Tumba 3500. Tomado de Emery.



157. Dibujo del complejo de Zoser en Saqqara: Al sur se halla el gran patio ceremonial. Al este se extiende el largo patio del Heb-Sed así como antepatios de los edificios del sur y el norte. Al norte, otro amplio patio se extiende ante el «edificio del palacio». Según Lauer.

A la sombra del *ka*

El comienzo de la arquitectura en piedra está inseparablemente unido al concepto del *ka,* y fue para el *ka* del rey Zoser, fundador de la III Dinastía, para el que se empleó por primera vez la arquitectura en piedra.

El *ka,* como ya vimos, es una especie de fuerza vital que emana desde el dios hasta su hijo el rey. El rey era el único mortal poseedor de esta fuerza cósmica y divina, pero podía dispensarla a sus súbditos. El deseo de continuación eterna de la existencia terrenal halló su expresión en la arquitectura en piedra, puesto que solamente la piedra proporcionaba un receptáculo indestructible para el *ka.* El jeroglífico del *ka,* dos brazos verticalmente extendidos hacia lo alto, está estrechamente relacionado con el gesto prehistórico de conferir fuerza, y en los Textos de las Pirámides se lee: «Atón, coloca tus brazos... alrededor de esta pirámide, como el brazo(s) de un *ka,* para que el *ka* de N. [el rey] pueda estar en ella, permaneciendo por siempre jamás» (Elocución 600; tr. de Mercer, 1952, I, pág. 253).

El complejo funerario de Zoser en Saqqara gira en torno a la pirámide escalonada —la primera de todas las pirámides—, de la cual hablaremos más adelante. Rodeando la pirámide hay un vasto recinto amurallado dentro del cual hay capillas, altares, patios, pórticos, almacenes, tumbas, etc. Era el *ka* del rey el que residía en las cámaras subterráneas del palacio, el que daba las órdenes en el edificio gubernamental, corría la carrera ceremonial en el amplio patio en la época de las fiestas jubilares, erraba a través de todo el recinto, cerrando tras de sí las puertas

de piedra labradas, siempre abiertas, que conducían a las capillas y a otros edificios, y salía para viajar a través de las muchas puertas fingidas de la alta muralla.

Zoser tenía dos tumbas dentro del complejo funerario. Su momia fue depositada en la que estaba debajo de la pirámide escalonada. La otra tumba, adosada al sur del recinto amurallado, no fue descubierta hasta 1928 por Firth y Lauer. Al final de unos pequeños pasadizos profundamente excavados en la roca, surgió a la luz una maravilla totalmente inesperada: las bajas paredes estaban recubiertas con pequeños azulejos de color azul, convexos y apenas mayores que un broche. Su barniz brilla todavía como alas de mariposas. Las acuarelas que hizo la señora Firth de las cámaras de la tumba sur de Zoser dan una viva impresión de la repentina sorpresa de esta visión entre las sombras eternas. Los azulejos representan un entramado de cañas colocado en marcos de madera, representados aquí por postes de piedra labrados a imitación de la madera. Coronándolos hay unos arcos poco profundos rellenos por una serie de *djeds,* jeroglíficos que significan la duración eterna. Entre los sectores de azulejos se hallan algunos de los más hermosos relieves del Imperio Antiguo, los cuales muestran a Zoser corriendo la carrera ceremonial e incluyen sus títulos en jeroglíficos bellamente esculpidos.

Nos hallamos en la residencia íntima del *ka:* alcoba, sala de recibir y —todavía en miniatura pero lo bastante grandes para ser accesibles— habitaciones destinadas a almacén para todas sus necesidades personales.

La entrada a los dos grupos de cámaras funerarias casi idénticamente dotadas es sobremanera complicada. Las que se hallan debajo de la pirámide fueron descubiertas en 1842 por Karl R. Lepsius y partes de ellas enviadas al Museo de Berlín. No estamos seguros de si la duplicidad de las tumbas era debida al doble enterramiento del rey, ya que, como soberano del Bajo Egipto, su cuerpo fue enterrado debajo de la pirámide situada al norte, pero los canopes que contenían sus vísceras fueron depositados en la tumba del sur como símbolo de su soberanía sobre el Alto Egipto.

El festival del Heb-Sed por el *ka*

¿Por qué necesitaba el *ka* un conjunto de edificios tan grande? Porque la fuerza vital creadora necesitaba regenerarse de vez en cuando. La fuerza del rey, como la de la naturaleza misma, necesitaba una renovación periódica. Esta renovación se efectuaba en el festival del Heb-Sed, en el jubileo del reinado del soberano. No conocemos los intervalos exactos en que tenía lugar el jubileo. Normalmente se celebraba cada treinta años, el período de una generación. «Se ha supuesto, con alguna razón, que el poder real estaba originalmente garantizado sólo por treinta años, después de los cuales el rey sería destronado y tal vez también se le daría muerte» (Drioton y Vandier, 1938, pág. 147). Y esto se hacía para evitar que el país declinara por causa del descenso de su vitalidad (Spiegel, 1953, pág. 138, pár. 209).

Del mismo modo que el *ka* no puede ser comparado con nuestro concepto del alma, el festival del Heb-Sed no puede ser comparado con un jubileo real contemporáneo. «No era una mera conmemoración de la entronización del rey.

Era una verdadera renovación de los poderes reales» (Frankfort, 1948, pág. 79). Pero dicha renovación no estaba limitada a la persona del rey, sino que era también «la renovación de todas aquellas relaciones benéficas entre el cielo y la tierra que el trono controlaba» *(ibíd.)*.

Esto requería tiempo. El festival duraba cinco días y estaba repleto de ceremonias muy complejas. El rey, sentado en primer lugar en el trono del Alto Egipto y luego en el del Bajo Egipto, recibía las declaraciones de lealtad y los presentes de las provincias. Los tronos, coronados por un doble baldaquín, estaban colocados espalda contra espalda sobre un estrado al que se accedía por varios escalones situados en los extremos. La forma del dosel abovedado existía en los comienzos de la I Dinastía y desde entonces experimentó pocos cambios (Badawy, 1954, pág. 66).

La participación del rey en la segunda parte de las ceremonias era activa. Era necesario que manifestara sus poderes físicos. En un pabellón especial se despojaba de las vestiduras reales y de su cetro en forma de báculo y luego se disponía a correr una carrera ceremonial entre dos piedras fijas que todavía permanecen en el amplio patio. Este «sprint» era considerado como una danza sobre el «campo» que simbolizaba los dos países de Egipto. La ceremonia se derivaba de los antiguos mitos de la fertilidad, y un cilindro-sello de la I Dinastía muestra a un rey corriendo la carrera ritual del mismo modo que Zoser en el relieve de la cámara subterránea de los azulejos azules. Pero en el cilindro-sello el rey está acompañado por el toro Apis, que al atravesar los campos aseguraba la fertilidad de los mismos (Vandier, 1952, I, págs. 862-863).

La relación entre el toro Apis y la carrera ceremonial del rey se mantuvo. P. Lacau dice que el primer documento en que el toro era efectivamente Apis aparece un relieve que representa a la reina Hatsepsut como faraón, junto con un toro. Dicho relieve estaba en uno de los bloques de su capilla, enterrado posteriormente en los cimientos del pilono de Amenofis III en Karnak (1926, fig. pág. 131).

La arquitectura para el *ka* del rey Zoser

El recinto sagrado de la pirámide escalonada de Zoser es en todos los aspectos un viaje hacia lo desconocido bajo el impulso de una fe inquebrantable y poderosa en la existencia del *ka*. Mientras que el complejo funerario de Zoser alcanza unas dimensiones hasta entonces desconocidas, todos los aspectos revelan su naturaleza experimental. Un nuevo capítulo se abre, porque esta es la primera vez que el hombre ha intentado crear una arquitectura en piedra. Desde los sólidos rastrillos de las mastabas, este pesado material —la piedra— sale ahora de la oscuridad a la radiante luz del sol.

Un nuevo esfuerzo de imaginación fue exigido del arquitecto cuando se

aproximó a este material «eterno» en vez de trabajar con ladrillos de barro y postes de caña o madera. Muchos detalles de la albañilería demuestran vacilaciones en el manejo del nuevo material. Los bloques son pequeños y los tambores de las columnas entregas raramente sobrepasan los 25 centímetros de altura. Al mismo tiempo Imhotep tuvo la audacia de erigir una estructura de 60 metros de altura, con una perfección que ha resistido todas las injurias del tiempo.

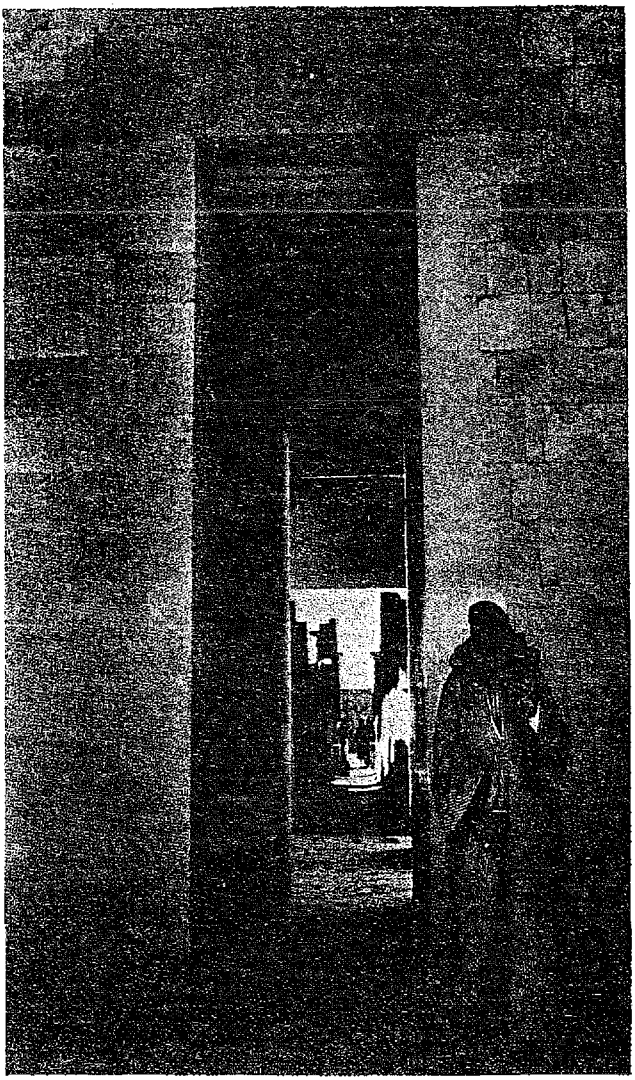
Solamente a través de la reconstrucción de Lauer hemos conseguido una viva impresión del complejo funerario de Zoser. Firth llamó la atención, de 1924 a 1931, sobre las distintas partes del complejo: recinto amurallado, sala de entrada, patio del Heb-Sed, etc. Lauer llegó a Saqqara en 1927 con J.E. Quibell y, después de la temprana muerte de este último, se concentró con inflexible determinación en la reconstrucción del gran complejo funerario (Firth, Quibell, Lauer, 1935). Hay otros grandes excavadores, pero Lauer es único. Como Borchardt y Ricke, Lauer es arquitecto de profesión, pero ha dedicado su vida a la reconstrucción del complejo funerario de Zoser. Cuando yo volví a visitar Saqqara a finales de 1960, Lauer, con su «salacot», rodeado de sus trabajadores, se hallaba ante una de las capillas del patio del Heb-Sed. Estaba a punto de levantar la pared posterior hasta la completa altura original del santuario. Lauer se ha dedicado a la tarea de devolver al monumento de Zoser algo de su primitivo esplendor. De no ser por la esmerada recomposición que ha hecho de los fragmentos originales, jamás habríamos experimentado la magnificencia de la más primitiva arquitectura de piedra hecha por el hombre.

El complejo funerario de Zoser abarca un rectángulo de unas 15 hectáreas, dentro de una muralla revestida con planchas de hermosa piedra caliza de diez metros de altura. Esta circunstancia puede o no haber simbolizado la «muralla blanca» de ladrillos secados al sol que rodeaba a Menfis, la recién fundada capital de Menes, primer rey del Alto y Bajo Egipto. El revestimiento de planchas —una serie de salientes y huecos rectangulares— recuerda la mastaba y las fachadas de los palacios de la I y II Dinastías. Este tratamiento de la superficie perdió posteriormente su importancia arquitectónica. No desapareció, pero fue relegado en su mayor parte al exterior de los sarcófagos, especialmente en el Imperio Antiguo.

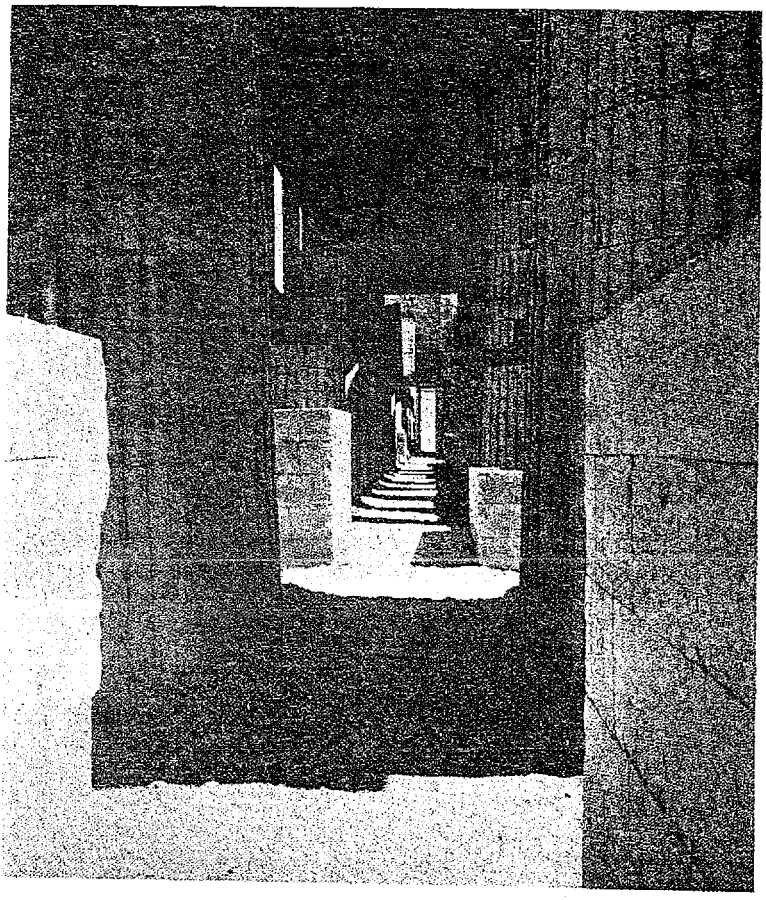
Espacios interiores: la sala procesional

Los egipcios nunca manifestaron gran interés por la elaboración del espacio interior cerrado. Muchos de los edificios del complejo funerario de Zoser eran ficticios, constando de una fachada de piedra directamente reforzada con cascotes, como un decorado de teatro. Algunos de dichos edificios tienen fragmentos de espacio interior, pero solamente a manera de insinuación. Otra cosa distinta es lo que ocurre con la larga sala procesional que da la pauta para todo el conjunto. Su difusa iluminación actuaba en sentido oblicuo a través de las ventanas horizontales, y la idea de un espacio interior sagrado como sala de paso persistió. Hasta la gigantesca sala hipóstila del templo de Karnak se ajustó a esta primitiva idea.

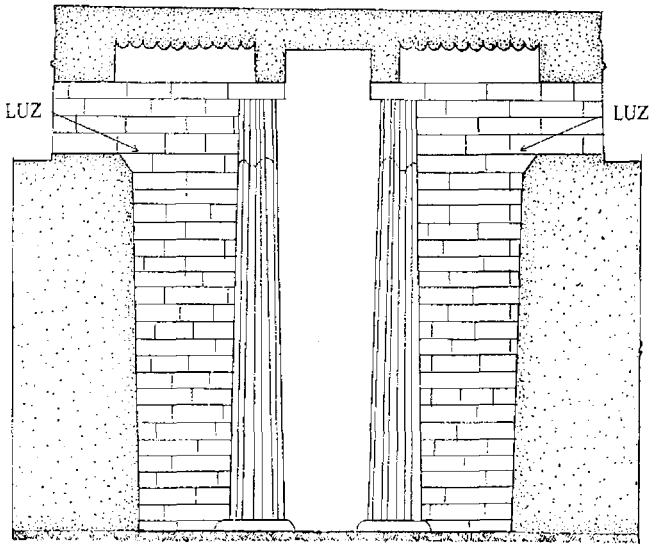
Sobre el recinto amurallado estaban indicadas muchas falsas puertas que daban



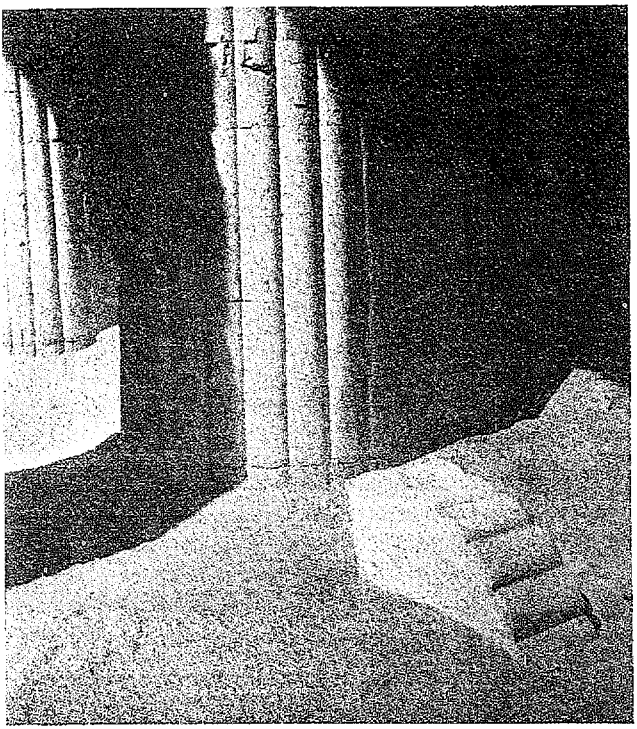
158. Entrada única al complejo de Zoser: Una estrecha puerta (1 × 6 m) permanentemente abierta a través de una torre a manera de fortaleza.



159. Sala procesional con columnas: Columnas lobuladas entregas que rematan salientes a manera de lengüetas, formando nichos a lo largo de los muros laterales. La sala está techada con losas planas. La iluminación, en ángulo oblicuo, está resuelta mediante aberturas estrechas, cerca del techo de los nichos.



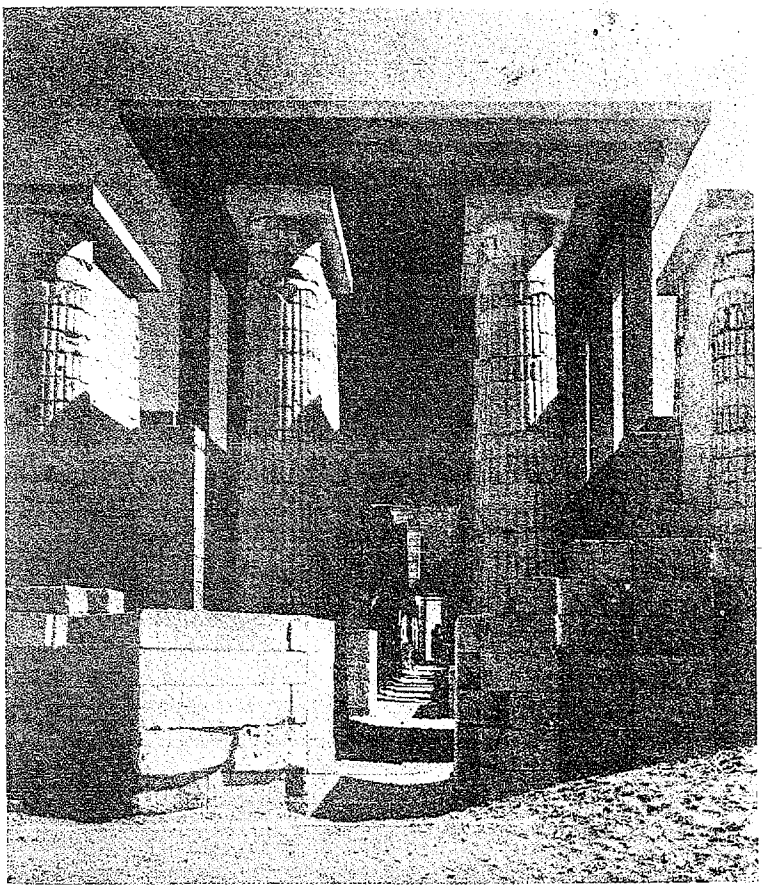
160. Sección de la sala procesional. Dibujo según original de Lauer.



161. Columnas lobuladas de la sala procesional: Detalle. Los tambores de las columnas raramente sobrepasan veinticinco centímetros de altura.

libertad de movimiento al *ka* del rey Zoser. Pero sólo había una única entrada para los vivientes, a través de la cual pasaba la procesión de Zoser con ocasión de su festival. Esta puerta, de no más de un metro de anchura, permanecía perpetuamente abierta y formaba parte de una torre de considerable altura. Al penetrar a través de un corredor en un diminuto patio trapezoidal nos hallamos frente a dos anchos portales, cada uno de ellos con una puerta de piedra siempre abierta, esmeradamente labrada *in situ*. Un segundo y corto corredor va seguido por otra puerta de piedra siempre abierta. Todo sería, al parecer, cerrado por el *ka* entre las fechas de sus festivales.

Entramos ahora en la primera gran sala de piedra, de cincuenta y cuatro metros de longitud. Se trata de un camino procesional, igual que las salas hipóstilas posteriores del Imperio Nuevo, como en el templo de Luxor. La sala de paso de Zoser estaba flanqueada por veinte columnas entregas de piedra caliza pintada de rojo, en las cuales acababan unos tabiques cortos transversales unidos a los muros laterales, creando así una serie de capillas abiertas. Es interesante señalar que la nave central había llegado ya a ser más alta que las laterales, de modo que sólo



162. Extremo de la sala procesional: El extremo que mira hacia el patio procesional está formado por una especie de sala hipóstila. El corredor se ensancha para incluir cuatro pares de columnas entregas. Una puerta para el ka*, de piedra, permanece permanentemente abierta en el primer plano a la izquierda. Nota: El techo de planchas de cemento sobre soportes es moderno.*

una luz débil podía filtrarse por los estrechos huecos de lo alto del muro. El sistema perduró: lo vemos en el templo del valle de Kefrén de la IV Dinastía y en la sala de festivales de Tutmosis III en la XVIII Dinastía.

Como la entrada, la salida del corredor ceremonial estaba espacialmente ampliada, no por un patio, sino por un recinto cubierto a manera de sala hipóstila. Cuatro pares de columnas lobuladas y entregas estaban unidos por paredes transversales. Hay una clara tendencia hacia la creación de espacios interiores más amplios, pero el tiempo de la columna de apoyo totalmente exenta no ha llegado todavía.

Espacios exteriores: la galaxia de patios

Lo que siempre interesó a los egipcios fue colocar volúmenes en el espacio, haciendo inmediato el contacto entre una estructura hecha por el hombre y el cosmos.

Los amplios patios interiores, rodeados de pórticos columnados, fueron también concebidos en relación con el cielo. Las estrellas y el sol fueron pintados en los techos de los deambulatorios. El desarrollo del patio interior comenzó con los templos funerarios de la IV Dinastía y prosiguió hasta mucho después. Sus peristilos eran una indispensable introducción al santuario y jamás se prescindió de ellos. Finalmente, en las terrazas del templo funerario de Hatsepsut, los peristilos fueron directamente incorporados, por decirlo así, al cosmos.

En el complejo funerario de Zoser una galaxia de patios irradia desde la pirámide escalonada. Pero no eran patios interiores en el sentido más reciente. Ninguno posee siquiera un germen de columnata. Se trata en verdad de plazas de la ciudad del *ka:* el gran patio para la carrera ceremonial rodeado de edificios; el patio del Heb-Sed, más pequeño, bordeado por dos series de capillas; las plazas ante el «edificio del gobierno», y el «palacio del rey». Nada de esto forma parte de verdaderos edificios. Su significado simbólico es diferente del de los patios interiores de los templos de la IV Dinastía. Aun así son prototipos del futuro, estimulando la creación de zonas abiertas a gran escala dentro de un conjunto de edificios.

El gran patio de la carrera ceremonial

En el eje longitudinal del gran patio del complejo se hallan dos bloques en forma de B, entre los cuales el *ka* de Zoser continuaría corriendo su carrera ceremonial en los festivales del jubileo. Hay también un altar cuadrado con una rampa (¿altar del sol?), y el templo llamado «T» por Lauer y que Ricke supuso que era el pabellón en el cual el *ka* del rey sería despojado de sus vestiduras reales antes de correr la carrera ritual. Estaba separado del patio por una pared baja que probablemente contenía una entrada.

A lo largo del lado oeste del patio se extiende la larga fachada de ficticios almacenes. La pared del este se apoya en el patio del Heb-Sed. La pirámide escalonada ocupa el lado norte, dejando una abertura a un patio de ofrendas. Lo más característico del lado sur es la tumba abovedada del rey, directamente unida a la muralla que cierra el recinto. Su significado real es todavía desconocido.

El patio del Heb-Sed

En este patio el *ka* del rey era investido nuevamente con el poder real para reinar sobre el Alto y el Bajo Egipto. En los lados este y oeste se alineaban capillas por cada una de las provincias (nomos). Delante de cada entrada a las capillas se alzaba una puerta de piedra caliza permanentemente abierta, sobre su gozne de piedra. Al entrar en la capilla hay que rodear un tabique *(couloir à chicane)* para lograr el acceso a un pequeño nicho de ofrendas; desde la entrada no es posible ver el nicho en forma de alacena. Unas vallas maravillosamente esculpidas en piedra

caliza separan cada capilla de la siguiente, derivadas sin duda de las tradicionales vallas de madera. Detrás de las capillas se levantaban altos edificios ficticios constituidos por una serie de fachadas de elevados santuarios abovedados, uno de los cuales estaba reconstruyendo Lauer en toda su altura en 1960.

En el extremo sur del patio, una gran plataforma de piedra a la que se accedía por dos tramos de escalones soportaba los dos tronos de coronación con su dosel.

En el ángulo noroeste del patio, en una capilla, cuatro estatuas estuvieron en tiempos adosadas a una pared (Zoser con su mujer y sus hijas).

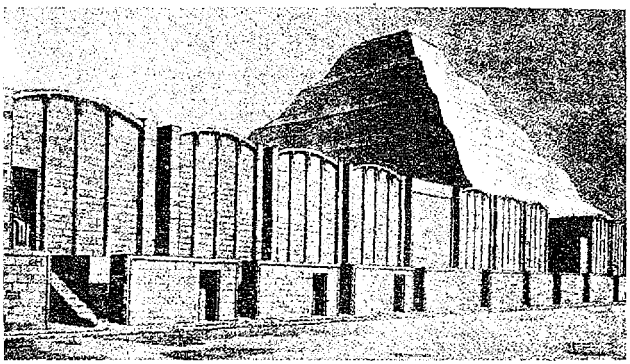
Patios de los edificios situados al norte y al sur

Siguiendo la más escrupulosa investigación, Lauer ha reconstruido las fachadas de piedra caliza de estos dos edificios con sus cornisas cóncavas, altas columnas entregas y capiteles de hojas colgantes que nunca fueron repetidos.

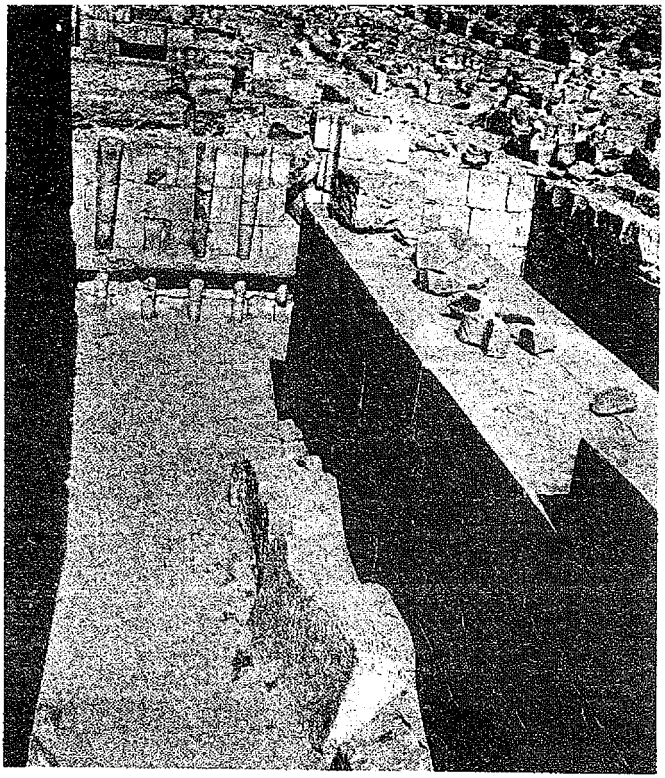
Ricke se preocupó aquí, como en todo el conjunto, de descubrir el significado de estas dos estructuras ficticias, y llegó a la conclusión de que eran réplicas, en tamaño reducido, de los edificios gubernamentales del Alto y el Bajo Egipto, que tal vez estuvieran en Menfis. Creyó reconocer representaciones de una construcción de madera con paredes de esteras sin función de apoyo, reminiscencia de los palacios entoldados del Alto Egipto.

Al edificio situado al sur se accede desde la cara oriental de la pirámide escalonada a través de una plaza de tamaño respetable.

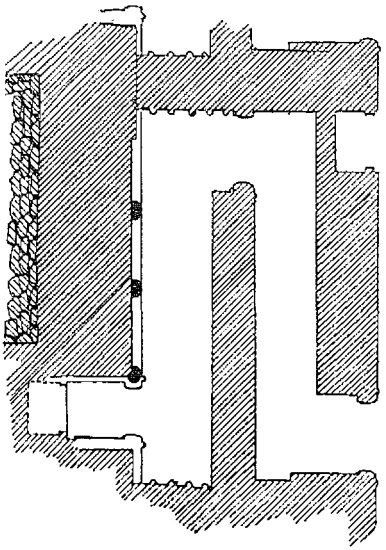
Las molduras acanaladas de los altos fustes en ambas fachadas tienen una aparente semejanza con el perfil de una columna dórica, pero esto es completamente ilusorio. Sus superficies estriadas nunca llegaron a ser populares en la arquitectura egipcia. Como las paredes con nichos revestidos de paneles, producían un vivo juego de luz y sombra que no corresponde al ideal egipcio de la superficie plana. Los egipcios preferían las columnas completamente circulares o las columnas imitando tallos de papiro, cuyos prototipos flanquean el camino procesional del



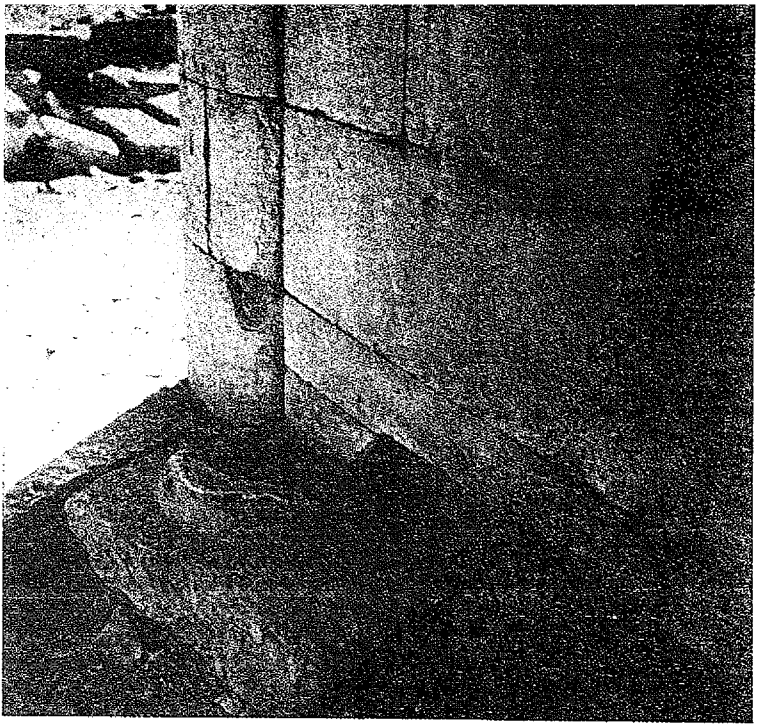
163. Reconstrucción de las capillas del Heb-Sed: El lado oriental del patio del Heb-Sed con su fila de altos santuarios falsos fronteados por capillas bajas (cf. lám. VI). Tomado de Lauer.



164. Interior de una capilla del Heb-Sed: La pared divisoria impone el acceso en zigzag (couloir à chicane) *al nicho de ofrendas. Las graciosas vallas de piedra simbolizan la separación de la capilla contigua.*



165. Plano de capilla del Heb-Sed mostrando la entrada, el couloir à chicane *y el nicho de ofrendas. Dibujo según original de Lauer.*



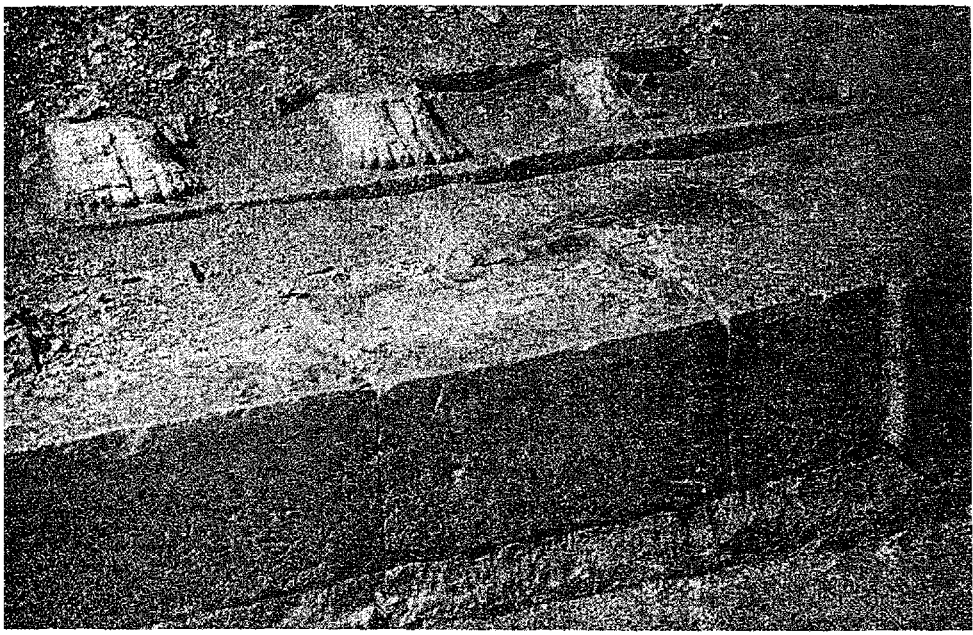
166. Quicio de puerta del ka: *Todos los detalles de esta puerta del* ka, *abierta, están ejecutados en piedra, incluidos el quicio y la jamba, como todo en el complejo de Zoser.*

167. Jean-Philippe Lauer reconstruyendo una capilla del Heb-Sed. Diciembre de 1960.

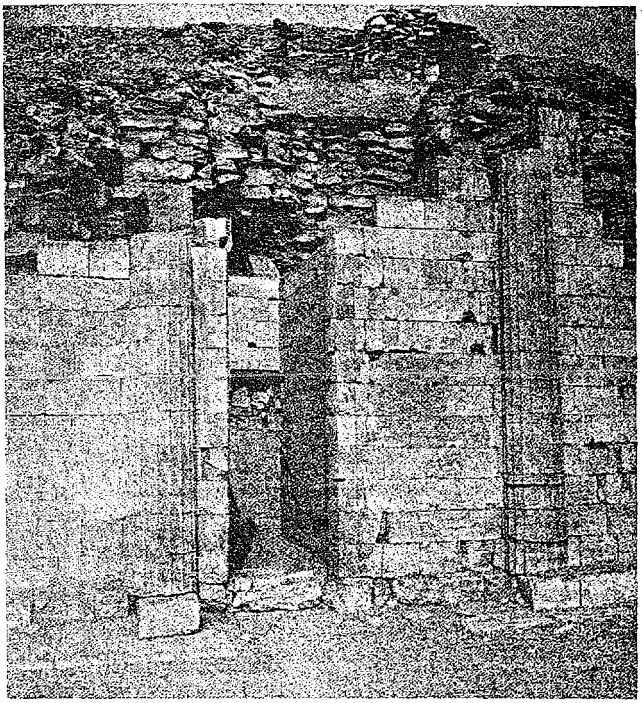
complejo funerario de Zoser. Unos mil cien años después, Senmut utilizó columnas protodóricas en las columnatas abiertas del templo funerario de Hatsepsut. *fig. 280*

En la pared oriental del edificio situado al norte hay tres columnas papiriformes entregas bajo una cornisa en arco. Todos los atributos esenciales de esta planta emblemática del Bajo Egipto están apuntados: el cáliz acampanado de la flor y el tallo triangular que casi salta fuera de la pared. Este primer capitel de piedra está dotado de toda la frescura y vitalidad de la primavera temprana. Es tal vez el más atractivo de los muchos detalles arquitectónicos que por primera vez entraron a formar parte del complejo funerario del rey Zoser. La columna papiriforme, como es sabido, nunca desapareció de la arquitectura egipcia, representando siempre el poder del crecimiento orgánico que asciende vertiginosamente hacia el cielo. *lám. I*

En un último patio en la cara norte de la pirámide está el *serdab,* una cámara en forma de alacena, completamente cerrada, que contiene la estatua de Zoser. Contiguos a la cámara están los restos de un amplio edificio considerado por Lauer como un templo funerario y por Ricke como el palacio del *ka* del rey. Esta última opinión parece la más convincente, no sólo porque los templos funerarios estaban tradicionalmente situados en la cara oriental de la pirámide, sino también porque los complicados rituales relacionados con ellos fueron desarrollados durante la IV Dinastía. *fig. 173*

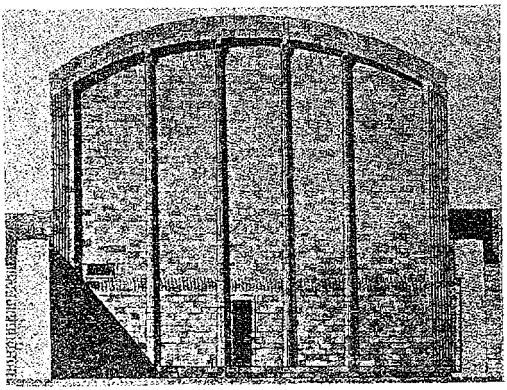


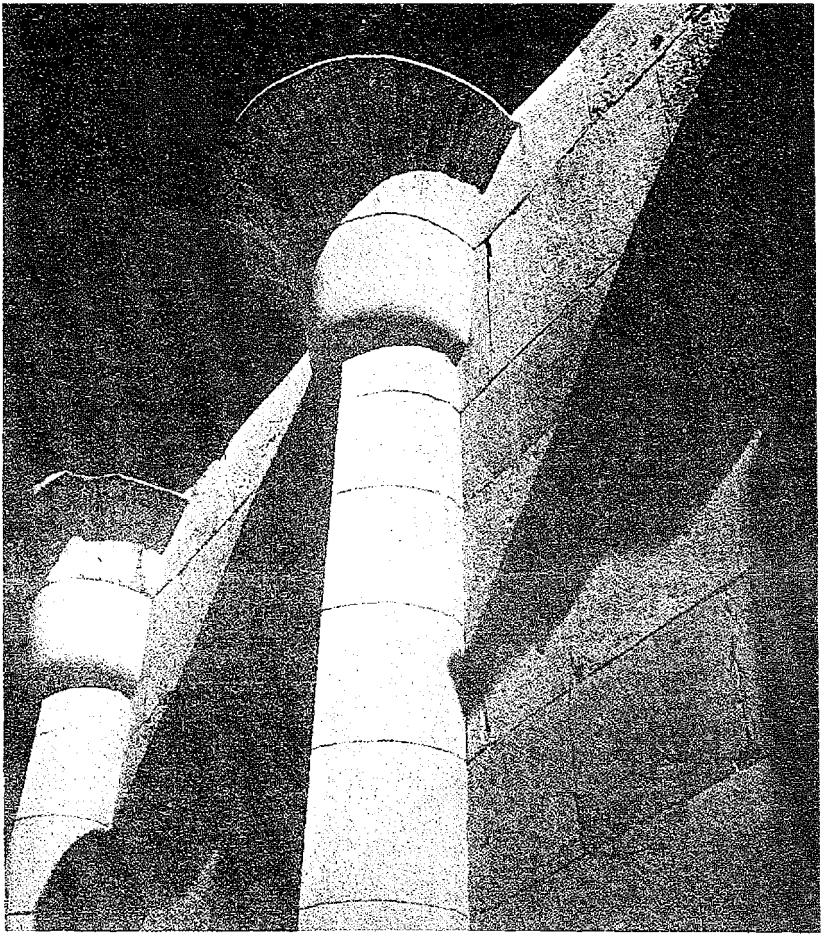
168. Pies correspondientes a cuatro figuras de tamaño natural en el patio del Heb-Sed. Probablemente Zoser, su mujer y sus dos hijas. Se trataría del grupo más antiguo de esta clase.



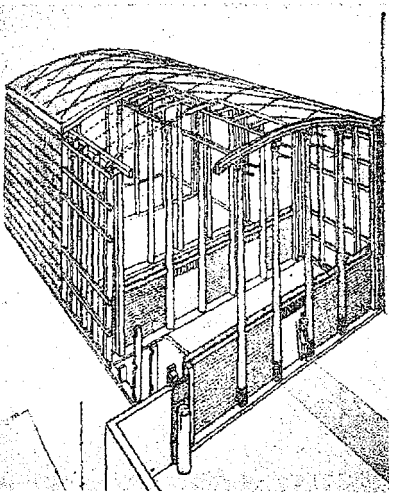
169. Fachada del edificio norte, parcialmente reconstruida, mostrando el refuerzo de cascotes de esta estructura ficticia.

170. Fachada del edificio norte, reconstruida en toda su altura. Dibujo tomado de Lauer.





171. Columnas entregas con capiteles papiriformes en la pared oriental del falso edificio situado al norte. Este es el origen de todas las posteriores variantes de la columna papiriforme, usadas a través de toda la arquitectura egipcia e incluso en la época romana (Filé).



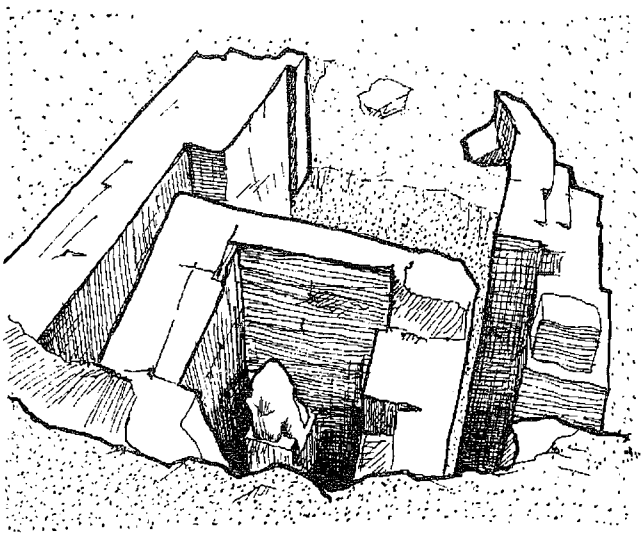
172. Estructura de un edificio gubernamental del Alto Egipto: Un armazón de madera desarrollado a partir de un pabellón entoldado. Ricke ha sugerido que los edificios situados al norte y al sur representan palacios gubernamentales del Alto y Bajo Egipto. Dibujo tomado de Ricke.

La estatua de Zoser en el *serdab*

Muchas obras escultóricas han desaparecido o sólo quedan de ellas restos insignificantes, tales como los pies de las cuatro figuras humanas que antaño hubo sobre una plataforma levantada en el ángulo noroeste del patio del Heb-Sed y que probablemente representaban a Zoser, su mujer y sus dos hijas. Si estuviera completo, sería el primer grupo escultórico de tamaño natural de figuras humanas, siendo muy anterior a los conocidos grupos con el rey Micerino, del final de la IV Dinastía.

La estatua de Zoser que Firth halló en 1924-1925 en el ángulo nordeste de la pirámide estaba casi intacta (1925, pág. 149). Allí se sentaba el rey en la oscuridad de su gabinete privado: su *serdab*. Sólo dos orificios redondos abiertos a la altura de los ojos en la pared de enfrente lo relacionaban con el mundo exterior. A través de estas aberturas el rey podía percibir los aromas del incienso, y sus ojos de cristal perderse en el vacío.

La estatua original del rey, de piedra caliza, actualmente en el Museo de El Cairo, ha sido sustituida por una buena copia de cemento que transmite una extraña impresión del soberano, siempre vigilante, sentado en la oscuridad. Su rostro está intacto, excepto los ojos y la nariz. Pero ni aun este deterioro consigue reducir la majestad que emana de su cabeza erguida, con los ojos hundidos y los pómulos marcados. La mano izquierda, con los dedos juntos, descansa plana sobre la rodilla. Esta posición sería conservada en todas las estatuas posteriores de los faraones. El brazo derecho de Zoser, doblado en ángulo recto, se extiende sobre el pecho.



173. Estatua de Zoser en su serdab. *Dibujo según original de Firth.*

174. *Estatua sedente de Zoser hallada en su* serdab.

El rey lleva las vestiduras exigidas para el festival del Heb-Sed, con el tocado ritual cayendo sobre los hombros, y la barba ceremonial.

Mejor que en ninguna otra se siente en esta estatua la gran dignidad y tal vez también la tragedia implícita en el rey-dios. Es también la primera representación humana conmovedora del arte egipcio.

Las pocas pequeñas estatuas que han llegado a nosotros de la II Dinastía no resisten la comparación con ésta. Particularmente si se atiende a la fuerza expresiva del semblante humano, tan decisivo para toda evolución futura, hay que echar redes más anchas. No sabemos exactamente cuántos siglos se extienden entre el rostro afligido y enigmático de la sacerdotisa de Uruk del período de Jemdet Nasr y la estatua del rey Zoser. La cabeza de alabastro sumeria está mucho más próxima a la tragedia humana que el semblante inmutable de Zoser. Pero su imagen está en la línea de la conquista de la representación humana como forma más alta del arte.

Como todo el complejo funerario de Zoser, que estaba dedicado al *ka*, así lo estaba esta estatua del rey difunto. Ella, y no la momia, era el asiento del *ka* cuando regresaba de sus viajes. Por esta razón existieron más tarde varias de dichas estatuas, cada una de ellas conservada dentro de un *serdab*, puesto que «el *ka*, como fuente de la existencia divina, es el garante de la eternidad» (Greven, 1952, pág. 33). Por consiguiente se protege y se oculta la estatua, como se hacía en el *serdab*, «porque con la destrucción de la representación acaba también su existencia eterna. El *ka* no tiene una existencia libre por sí mismo, necesitando una forma externa en la cual lo divino pueda hacer su aparición» *(ibíd.)*.

Puesto que el rey era el único mortal que poseía el *ka*, la primera estatua del *ka* solamente «podía proceder de una tumba real. Según los conocimientos presentes, es la estatua de Zoser la que corresponde a esta designación» *(ibíd.)*. Así se comprende que la mayor fuerza escultórica estuviera concentrada en esta estatua encerrada que formaba cuerpo con la pirámide y permanecía en la más estrecha relación con la profunda tumba bajo tierra.

Sobre el significado del complejo funerario de Zoser

Elementos tectónicos

El complejo funerario de Zoser contiene los comienzos de muchos aspectos que posteriormente llegaron a ser elementos constituyentes de la evolución del espacio y la forma en la arquitectura egipcia. Al mismo tiempo se aprecian a simple vista las irregularidades y las correcciones de la obra en piedra, que demuestran lo desacostumbrados que estaban los primitivos constructores al manejo de este material. Pero es más asombroso aún percibir la riqueza de imaginación puesta en cada detalle.

Entre los elementos tectónicos que aparecen por primera vez en el complejo

funerario de Zoser están la cornisa, el toro, las pilastras de esquina y las columnas (Badaway, 1954, págs. 79-83). De estas formas, la columna de piedra puede ser seleccionada como testimonio de la continuidad de la tradición egipcia. Los fustes compuestos a imitación de haces de cañas de la sala procesional de Zoser alcanzan dimensiones monumentales en la V Dinastía, y las columnas similares a imitación de tallos de papiro fueron erigidas hasta el siglo I d. C., en el templo de Isis en la isla de Filé. Las flores abiertas de papiro en las columnas de los «edificios gubernamentales» de Zoser crecerían posteriormente hasta alcanzar proporciones monstruosas a lo largo del corredor principal de la gran sala hipóstila de Karnak. Las columnas poligonales —frecuentemente llamadas protodóricas— del templo T y de los «edificios gubernamentales» reaparecen después más raramente, en el Imperio Medio (templo funerario de Mentuhotep) y en el Imperio Nuevo (templo funerario de Hatsepsut).

La vida en la tierra y la vida en el más allá

La arquitectura en piedra se derivó de la inmutable convicción de que la vida en el otro mundo era una continuación directa de la vida terrena, con sus festivales periódicos y su sucesión de actividades diarias. Pero esta continuidad dependía de muchas medidas preventivas, desde simples ofrendas «que hacían vivir su nombre», hasta mansiones en las cuales el difunto podía vivir para siempre. La forma de la casa definitiva cambió muchas veces durante la historia de Egipto, pero perduró la convicción de que la vida en el más allá, como la vida en la tierra, nunca estaba quieta. Sus alteraciones estaban vinculadas a los ciclos eternamente recurrentes de las estrellas y el sol. La fuerza vital —el *ka*— erraba continuamente, yendo y viniendo de la tierra al cielo.

Nunca estuvo la vida terrena tan directamente proyectada en la vida en el más allá como en el recinto sagrado de la pirámide escalonada de Zoser. Sus patios y edificios servían a un exclusivo propósito: proporcionar una existencia eternamente renovada. Todo irradia un alegre optimismo.

El complejo funerario de Zoser se sitúa entre las mastabas comparativamente humildes de los reyes de las primeras dinastías y los conjuntos piramidales dramáticamente organizados de la IV Dinastía, regida por el complicado ritual y por el poder abrumador de la clase sacerdotal. Es como si una amable sonrisa flotara sobre todo el complejo de Saqqara. Este optimismo reapareció solamente una vez, en el templo funerario de la reina Hatsepsut en Deir el-Bahari, unos once siglos después. Pero la idea de creación de un entorno arquitectónico completo para uso del *ka* nunca volvió a repetirse.

Octava parte:
Las pirámides: ritos y espacio

Las pirámides son el triunfo de la forma abstracta pura.

El hombre levanta su obra con sus propias manos y la opone a la infinitud del espacio cósmico. A través de su impacto simbólico, la pirámide, obra del hombre, se une con la eternidad y hasta compite con ella. Solamente unas cuantas agujas góticas caladas —gritos de piedra que el hombre eleva al cielo— expresan tan intensamente la exigencia de penetración de lo eterno por la existencia humana temporal, pero los medios artísticos son radicalmente diferentes.

Sobre todo en un aspecto, las pirámides son únicas. El empeño humano nunca ha conseguido materializar con tan sublime sencillez el irreprimible impulso de unir su destino con la eternidad. Esta absoluta sencillez y precisión inmaculada une la lógica matemática con el enigma y el misterio.

El plano como elemento constitutivo de la arquitectura

La forma corriente de la pirámide, la llamada pirámide auténtica, consta de cuatro triángulos isósceles iguales que convergen en un solo punto. El cuerpo geométrico formado por estos cuatro planos triangulares revela una gran sabiduría en la construcción. Cada uno de los lados está precisamente orientado hacia uno de los cuatro puntos cardinales. Esta forma tipo nunca cambió.

Ningún período posterior tuvo el impulso ni el valor de sacrificar todo lo demás con objeto de expresar su anhelo de eternidad por medio de la abstracción más pura. Las pirámides carecían de relieves, de inscripciones y de detalles de cualquier clase. Solamente planos lisos y deslumbrantes, inaccesibles al contacto humano. El poder del plano se hace sublime.

Estas inmensas superficies triangulares fueron recubiertas con piedra caliza muy pulimentada, o incluso con granito rosado. A diferencia de los zigurats mesopotámicos, las pirámides no tenían tramos de escalones. Rechazaban el contacto de los mortales. Cada pirámide era la morada de un rey difunto que viajaba desde su cámara eternamente sellada en el corazón de la pirámide, por el cielo durante el día y a través de los peligros del océano del mundo subterráneo durante la noche.

Las superficies planas siempre ofrecen un fondo para los elementos tectónicos expuestos sobre ellas, y las gradaciones de la pirámide escalonada representan un paso hacia los planos implacables de la pirámide de Keops. Desde esta última hasta los obeliscos y pilonos, la superficie plana nunca dejó de ser un elemento constitutivo de la arquitectura egipcia.

La fase experimental de la pirámide

En comparación con la evolución prehistórica e histórica primitiva de Mesopotamia, casi podría decirse que Egipto permaneció medio dormido. Aunque en la I y II Dinastías hay algunos indicios de la futura fuerza imaginativa, estos indicios son pocos y se hallan dispersos a lo largo de los siglos. El cambio decisivo se produjo en la III Dinastía.

Las pirámides atravesaron una fase experimental caracterizada en todos los aspectos por la búsqueda a tientas de la forma y la estructura. Pero comparada con el lento y constante fluir del desarrollo egipcio normal, la transición a la forma tipo fue alcanzada con asombrosa rapidez, en poco más de medio siglo. En nuestra época, donde todo evoluciona a un ritmo frenético, la construcción en hierro tuvo necesidad de un mismo lapso de tiempo para llegar desde sus comienzos a la construcción de la Torre Eiffel.

El período de transición comenzó con la pirámide escalonada de Zoser a comienzos de la III Dinastía y acabó con las tres pirámides de Snefru a comienzos de la IV Dinastía. La seguridad de la forma y de la construcción adquirida durante esta fase experimental condujo en una generación a la insuperada perfección de la pirámide de Keops.

La pirámide escalonada de Zoser, de la III Dinastía

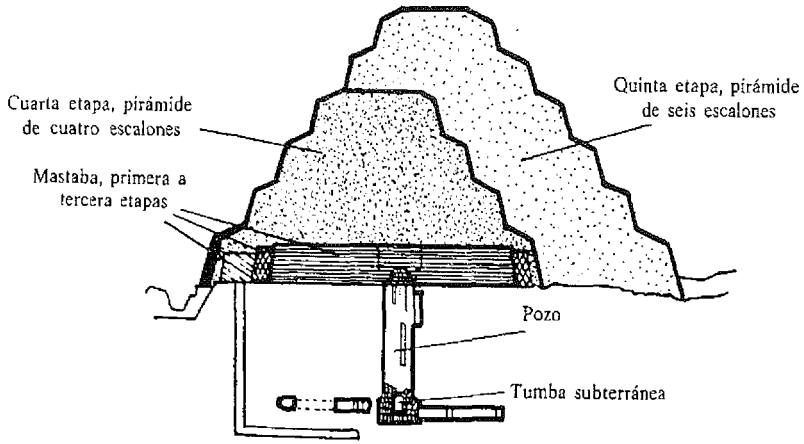
Hay un enorme salto desde las mastabas con la parte superior plana de la I y II Dinastías hasta la pirámide escalonada de Zoser. El sexto nivel de esta pirámide alcanzó 60 metros de altura. Fue, en cierta medida, el primer rascacielos hecho por el hombre, su primer edificio alto. Los contemporáneos de la pirámide escalonada de Zoser debieron tenerla un gran respeto. Ese respeto persistió. Hasta los reyes saítas realizaron reformas a gran escala de su interior, y las inscripciones hechas en las paredes por los peregrinos en tiempos de Ramsés II dan prueba de grandiosa reverencia y del anhelo por la renovación de la primitiva piedad.

¿Qué es lo que impulsó esta insólita estructura? Fue el resultado de la creencia en la naturaleza divina del rey, quien después de su muerte llegaría a identificarse con la deidad. La necesidad de representar y facilitar esa fusión puede haber sido la causa del impulso que condujo a las pirámides, cuya forma está arraigada en la representación cósmica.

Ninguna otra pirámide muestra tan impresionantemente como la de Zoser el surgimiento del espíritu arquitectónico. La pirámide no habría sido creada sin el genio arquitectónico de Imhotep, y aun así, el concepto de la pirámide escalonada surgió solamente en el curso de su construcción.

Lauer distingue seis etapas —con palabras suyas, «seis proyectos» (1936, págs. 12-26)—. Las tres primeras abarcan el punto de partida: la mastaba junto con sus ampliaciones. Las tres últimas se refieren a la auténtica pirámide, primero con cuatro escalones y finalmente con seis.

175. Pirámide escalonada de Zoser: El ángulo sur de la cara occidental muestra los diferentes tamaños de los bloques e hiladas que marcan la transición de la mastaba a la pirámide escalonada.



176. Pirámide escalonada: Sección transversal este-oeste. El alto grado de experimentación es evidente, yendo desde la primera mastaba, con su hondo pozo colocado simétricamente, hasta la pirámide de cuatro y luego de seis escalones, haciéndose el pozo progresivamente excéntrico. El salto definitivo desde la pirámide de cuatro escalones exigió la mayor audacia. Dibujo según original de Lauer.

La mastaba de la primera a la tercera etapas

El proyecto inicial fue una mastaba, pero esta vez en planta cuadrada (unos 60 metros de lado) y más alta (casi 9 metros) que lo normal. Agrandada en principio por un lado, se revistió la superficie total con piedra caliza de Tura. Una segunda ampliación del lado oriental restituyó a la planta su forma cuadrada, que serviría de base a la pirámide escalonada.

La pirámide escalonada de la cuarta a la sexta etapas

La cuarta etapa anuncia un cambio de plan. El conjunto se transformó en una pirámide de cuatro escalones, de base cuadrada, construida asimétricamente sobre la mastaba. En la quinta etapa se logró la verticalidad decisiva. El centro de la pirámide es desplazado hacia el noroeste y se añaden dos escalones más. La sexta etapa consiste en una ligera ampliación de la altura y el volumen, y «es sólo una simple modificación de la cubierta» (Lauer, 1936, pág. 21). Toda la estructura fue revestida, como de costumbre, con piedra caliza de Tura.

Actualmente, los flancos de la pirámide escalonada permanecen al descubierto. En su obra de albañilería, vacilante pero ingeniosa, se siente el carácter experimental del grandioso proyecto. En esta primera arquitectura en piedra una gran cautela regía las dimensiones de los bloques, ya que los constructores estaban todavía acostumbrados al tamaño del ladrillo de arcilla, pero ningún método posterior resistió con tanto éxito el paso del tiempo.

Las tumbas subterráneas

La misma experimentación aparece en los enterramientos subterráneos con sus muchas ramificaciones.

Al fondo de un pozo cuadrado de 28 metros de profundidad, construido durante la erección de la pirámide, se extiende la cámara funeraria de Zoser. Lauer no halló otra cosa que un pie negro, momificado. De esta cámara funeraria parten corredores por los cuatro lados. Sus numerosas ramificaciones contenían las tumbas de los miembros de la familia real, incluida la de un niño de ocho años.

Aquí, como en su tumba situada al sur delante del recinto amurallado del complejo, Zoser construyó una asombrosa residencia subterránea para su vida futura. En las réplicas a escala reducida de las habitaciones de su palacio de Menfis se revela el carácter cordial del complejo funerario. De repente, a unos veintiocho metros bajo tierra, nos hallamos inmersos en la alegría de vivir. Las paredes de azulejos simulan haces de cañas, exactamente como en la tumba del sur, y los lunetos que hay encima contienen delicados relieves del rey corriendo la carrera ritual en el festival del Heb-Sed, pudiendo compararse en calidad con los relieves hallados en la tumba de Hesiré, uno de los funcionarios de la corte de Zoser.

El rey difunto conservaba una íntima proximidad con la vida diaria, incluso en las profundidades de la tierra.

La ingenua proyección de una existencia terrena en el más allá, la exigencia de un presente eterno que impregna todo el complejo funerario de Zoser, nunca

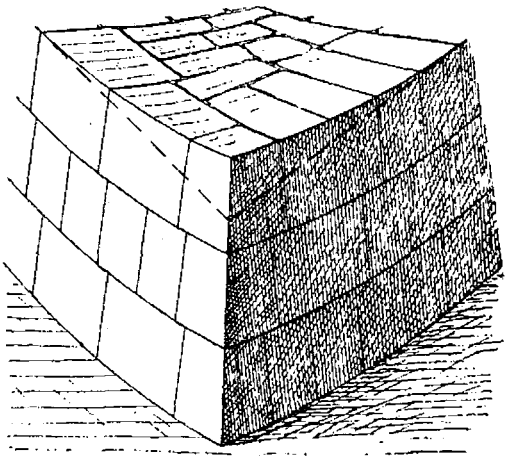
volverían a repetirse. Le sucedieron los abrumadores ritos del culto del sol. Este culto estaba ya presente en el complejo de Zoser, pero allí formaba sólo una parte del conjunto: estaba relacionado con el reino del *ka* y con la renovación de poder en el festival del Heb-Sed. En la IV Dinastía, esta íntima relación de la muerte con la vida fue sustituida por un complicado ritual al cual el rey difunto era sometido por los sacerdotes. Este ritual fue el que determinó el programa de los posteriores conjuntos piramidales.

Una pirámide escalonada inacabada de la III Dinastía

No lejos del ángulo suroeste del complejo funerario de Zoser, Zakaria Goneim, inspector jefe de Arqueología de Saqqara, halló una pirámide inacabada del rey Sekemket, uno de los sucesores de Zoser. Entre 1951 y 1955, Goneim excavó partes de este complejo jamás acabado. El muro exterior fue revestido con paneles como el de Zoser, y la pirámide también siguió su sistema.

Durante el período de excavación se aprendió mucho acerca de cómo los constructores resolvieron el problema de hacer los ángulos de las pirámides.

La parte más impresionante de la pirámide inacabada de Sekemket era la entrada monumental a la subestructura, entre dos altos muros de contención profundamente hincados en el lecho rocoso. En febrero de 1954 yo estaba viviendo en Saqqara como invitado de Goneim. Una noche, éste exclamó en plena excitación: «¡La entrada está intacta!» Y así era. Pero cuando, meses después, penetraron en la cámara más interna y abrieron el sarcófago de alabastro sellado, lo hallaron vacío. Esta decepción, junto con otras contrariedades sufridas durante y después de la excavación de esta pirámide enterrada, pueden haber contribuido a la prematura muerte de Goneim. En el otoño de 1958 se le encontró ahogado en el Nilo.



177. Angulo de una pirámide escalonada: Dibujo esquemático mostrando cómo se evita una línea que biseque los ángulos inclinando las hiladas como se indica por la línea discontinua. Tomado de Lauer.

178. Angulo de la pirámide inacabada: Aquí se evidencia la inclinación hacia arriba de las hiladas. Pirámide de Sekemket, Saqqara. III Dinastía.

179. Angulo de la pirámide inacabada, visto desde arriba.

Las tres pirámides de Snefru

Snefru, fundador de la IV Dinastía, fue un gran experimentador en la construcción de pirámides. Construyó tres, diferentes entre sí. Probablemente la primera fue la de Meidum, la cual había sido comenzada por Huni, el último rey de la III Dinastía. Esta pirámide se alza completamente aislada a unos setenta kilómetros al sur de Gizeh y a cerca de cincuenta kilómetros de Dahshur, donde Snefru construyó las otras dos, una junto a otra.

Meidum

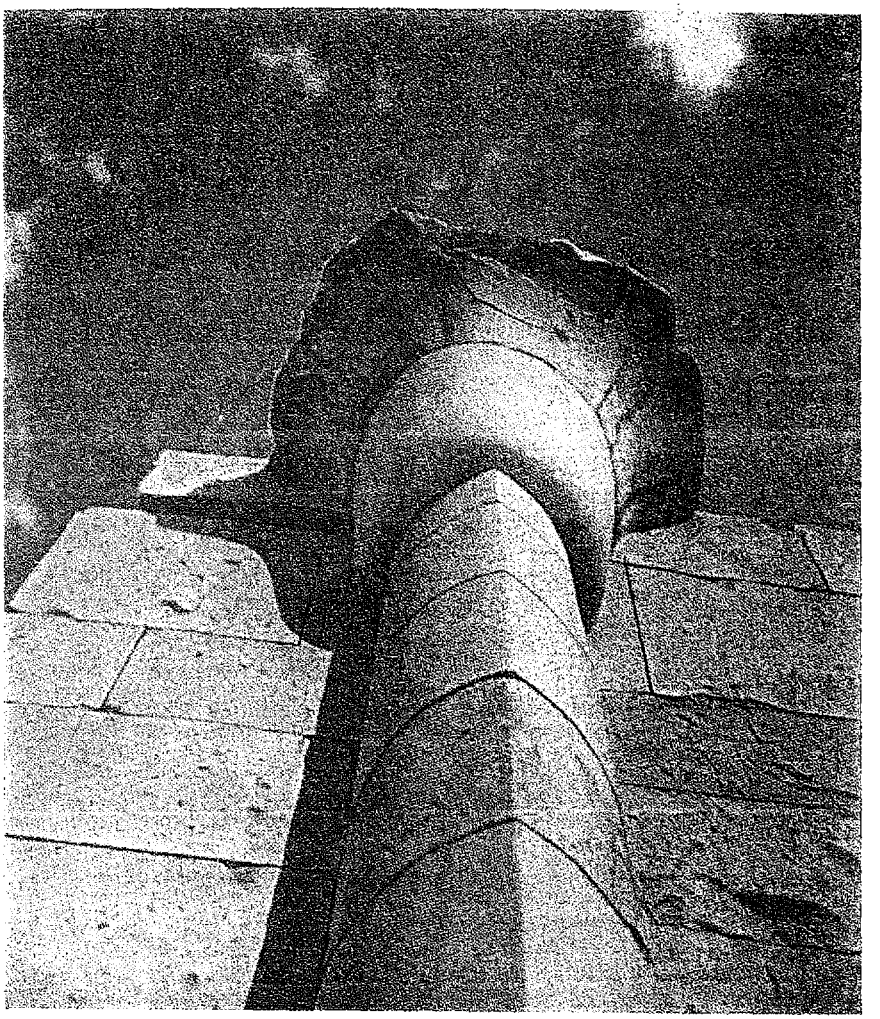
La pirámide de Meidum es precursora de la forma tipo, aunque pasa a través de dos etapas de pirámides escalonadas (la primera con siete escalones y la segunda con ocho) antes de llegar a las superficies lisas y continuas de la verdadera pirámide. Sus escalones tercero y cuarto, muy deteriorados, todavía se perfilan sobre el yermo de detritos y arena del desierto, y quedan algunos fragmentos de su pulimentada superficie final. En un tiempo presentó el aspecto, inusual en Egipto, de una gran torre con terrazas escalonadas alzándose en un ángulo de setenta y cinco grados. Como la pirámide escalonada de Zoser, la de Meidum fue construida en varias etapas, aunque su centro original nunca quedó desplazado.

En la primera etapa, de siete escalones, había un núcleo y «seis gruesas capas de mampostería, disminuyendo en altura desde el centro hacia afuera... Cada una de las capas, que se inclinaban hacia dentro en un ángulo de unos 75°, constaba de un núcleo de piedra local revestido de arriba abajo con piedra caliza de Tura» (Edwards, 1961, págs. 65-66). El revestimiento de piedra caliza pulimentada indica que, al principio, esta solución se creyó definitiva.

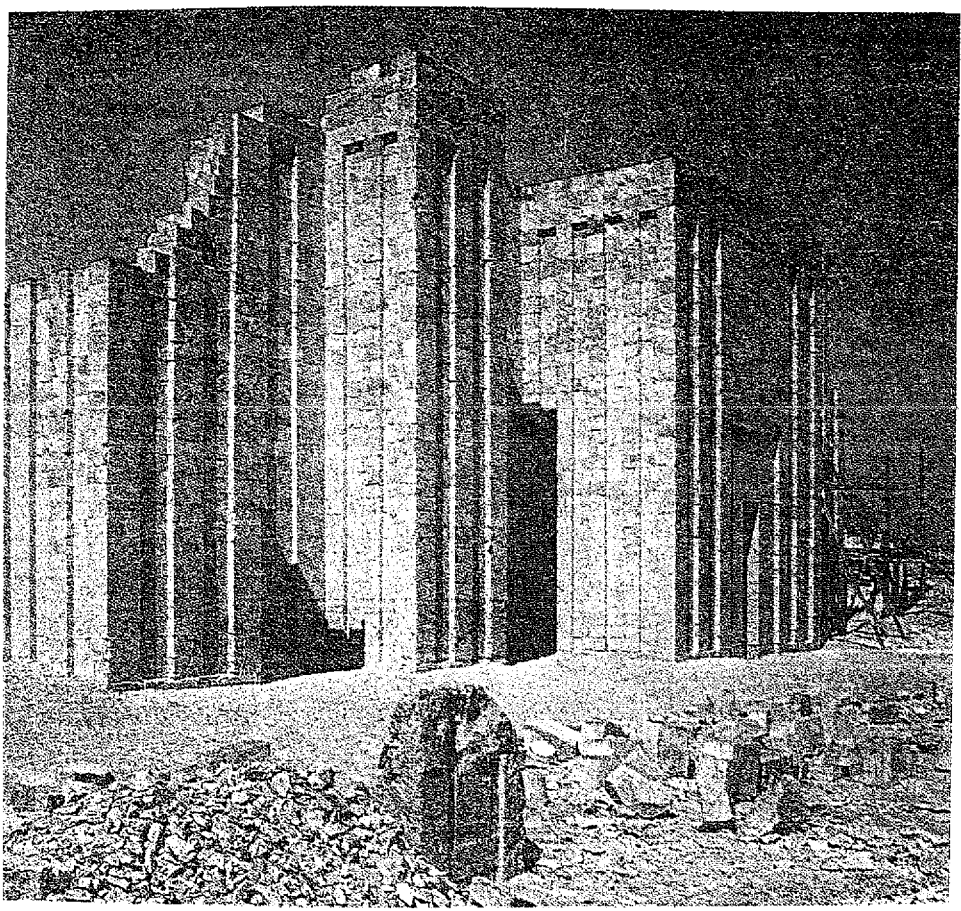
En la etapa de ocho pisos, la segunda, parece que la altura fue considerada insuficiente. «El escalón superior fue elevado unos 45 pies y cada escalón sucesivo fue construido hasta un nivel algo más alto que el de encima en el diseño anterior» (pág. 66). La construcción era la misma. Se colocaron toscos bloques sobre la superficie pulimentada de los escalones y el conjunto fue revestido nuevamente de piedra caliza.

En la tercera etapa, los escalones pulimentados fueron cubiertos de nuevo por bloques toscamente labrados, y como final, se creó una superficie plana continua sobre los cuatro lados, cerrando el conjunto dentro de una cubierta de piedra pulimentada. Esto condujo a la forma definitiva de la pirámide. No se puede asegurar si las etapas se sucedieron inmediatamente una a otra o si hubo interrupciones. Probablemente ocurrió esto último. Hasta es posible que hubiera un intercambio de experiencias entre los constructores de las pirámides de Meidum y Dahshur. «Varille advirtió que se hallan las mismas marcas de transporte en bloques de la pirámide de Meidum y de la pirámide romboidal, y llega a la conclusión de que un mismo equipo trabajó en los dos monumentos» (Vandier, 1954, II, pág. 15).

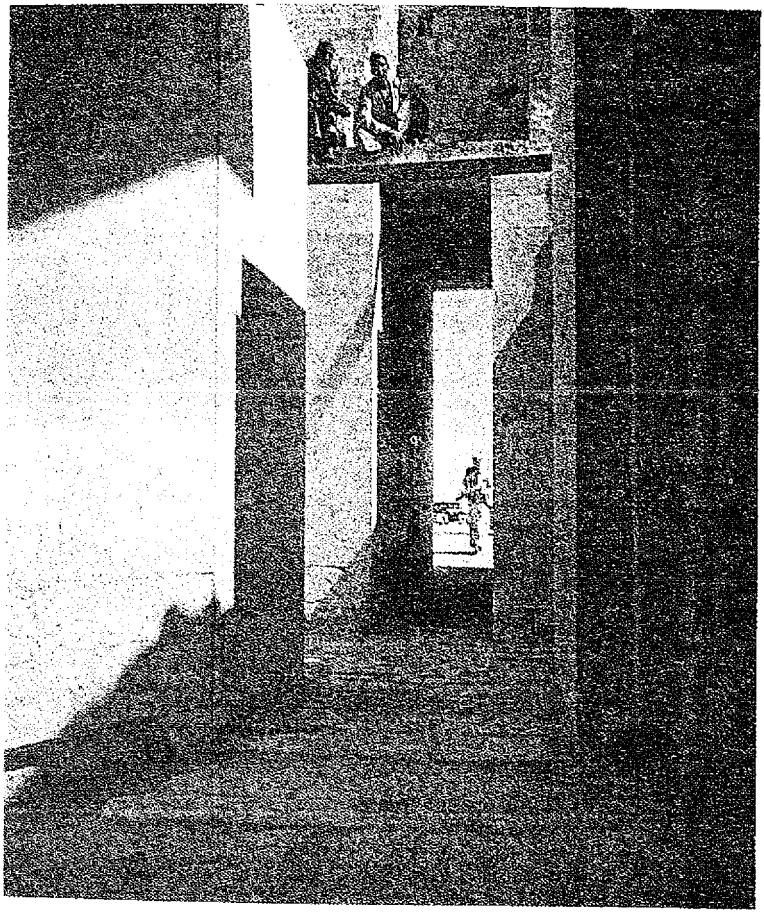
Es tentador explicar la nueva forma de la pirámide con sus superficies triangulares pulimentadas como el resultado de innovaciones técnicas, pero esto no es suficiente. La forma corriente se derivó de nuevas necesidades rituales, como A. Moret y otros han reconocido hace mucho tiempo. Las tres pirámides de Snefru se diferencian básicamente de la de Zoser, y la diferencia corresponde a un cam-



I. El primer capitel de piedra: Columna papiriforme del edificio norte del complejo de Zoser. Saqqara (cf. pág. 274).



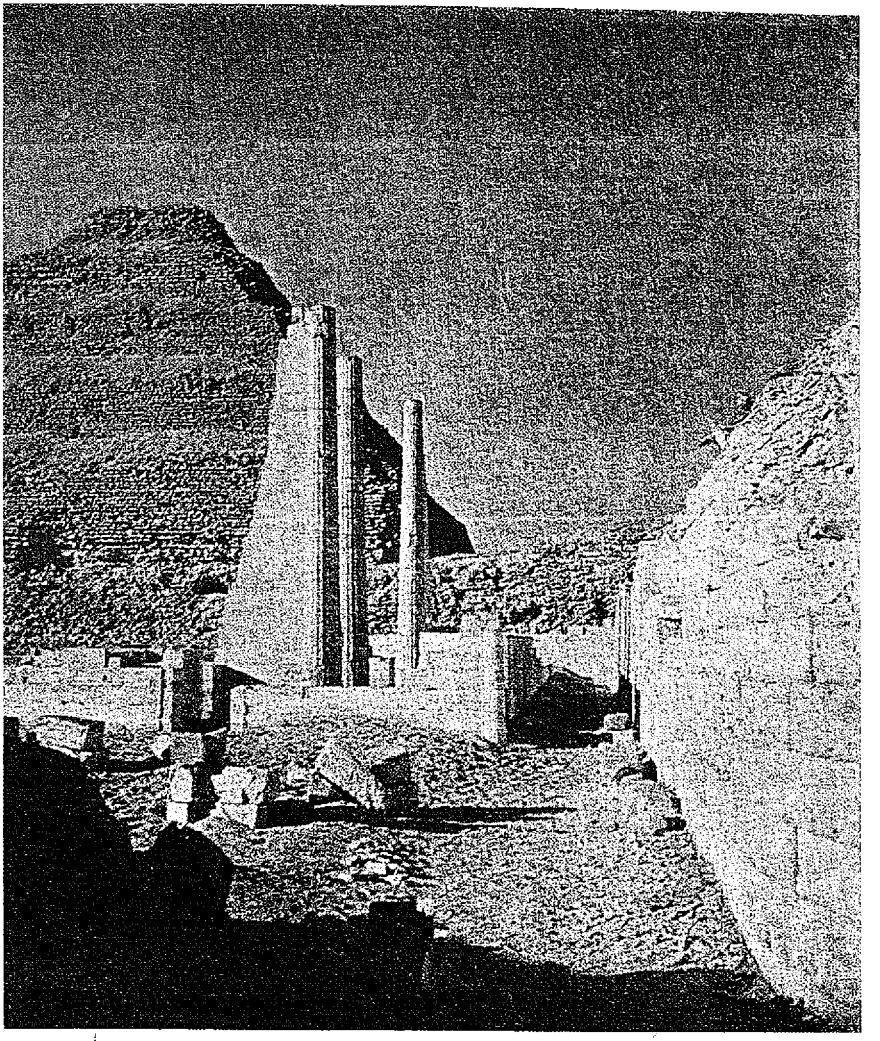
II. La única entrada al complejo de Zoser (cf. pág. 266).

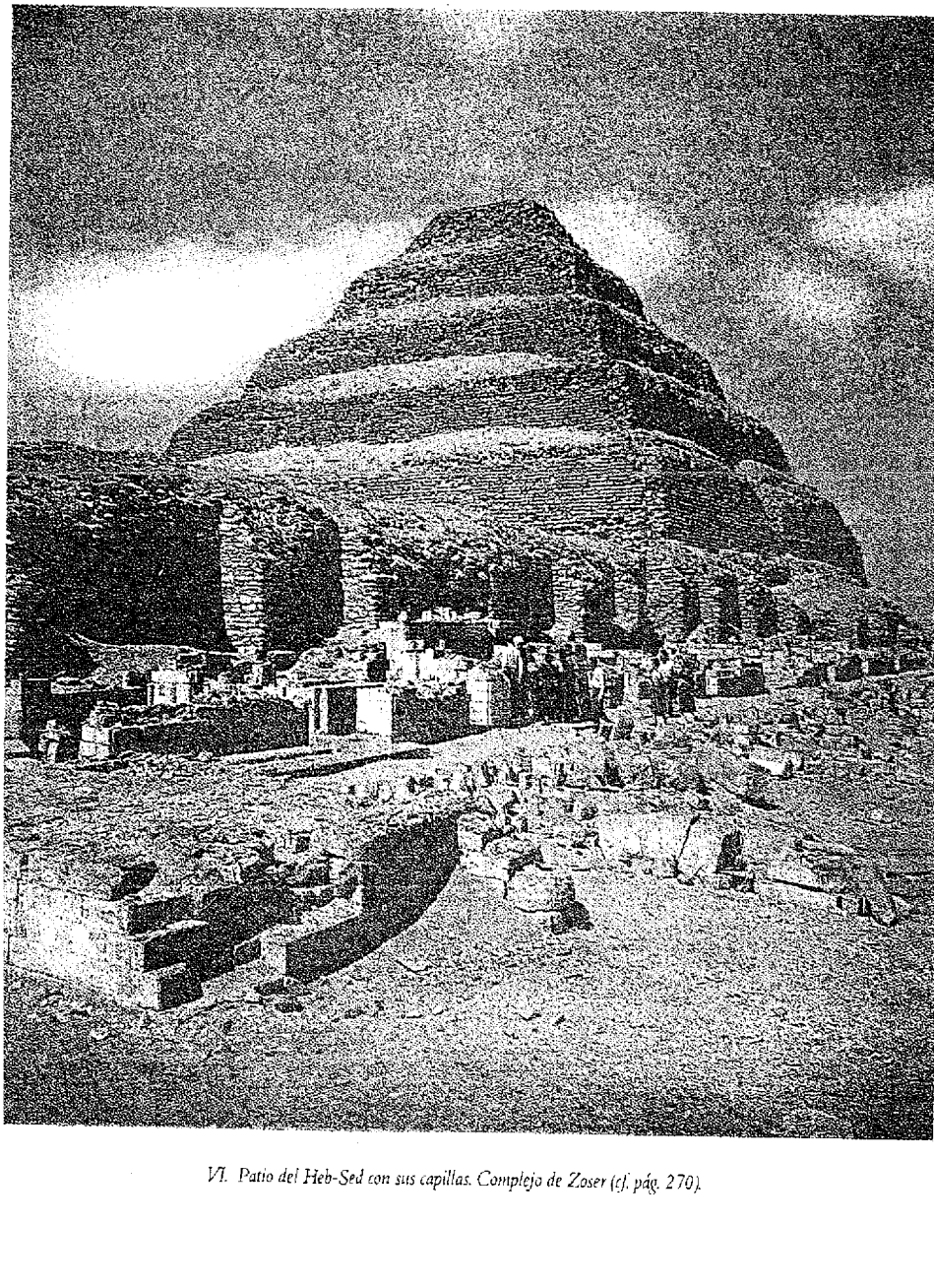


III. La entrada al complejo de Zoser vista desde la avenida procesional (cf. pág. 268).

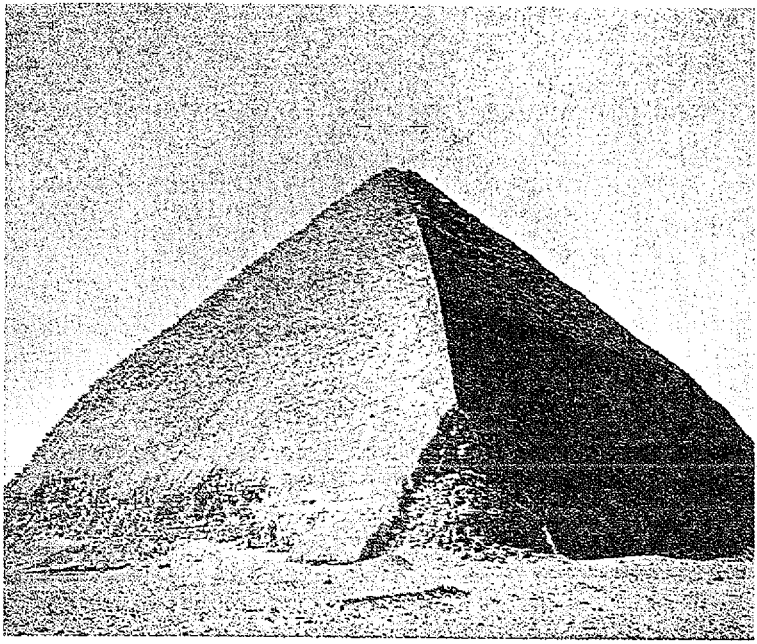
IV. Vestíbulo procesional con columnas: Vista al gran patio. Complejo de Zoser (cf. pág. 265).

V. Gran patio con el templo T en primer término. Complejo de Zoser (cf. pág. 270).



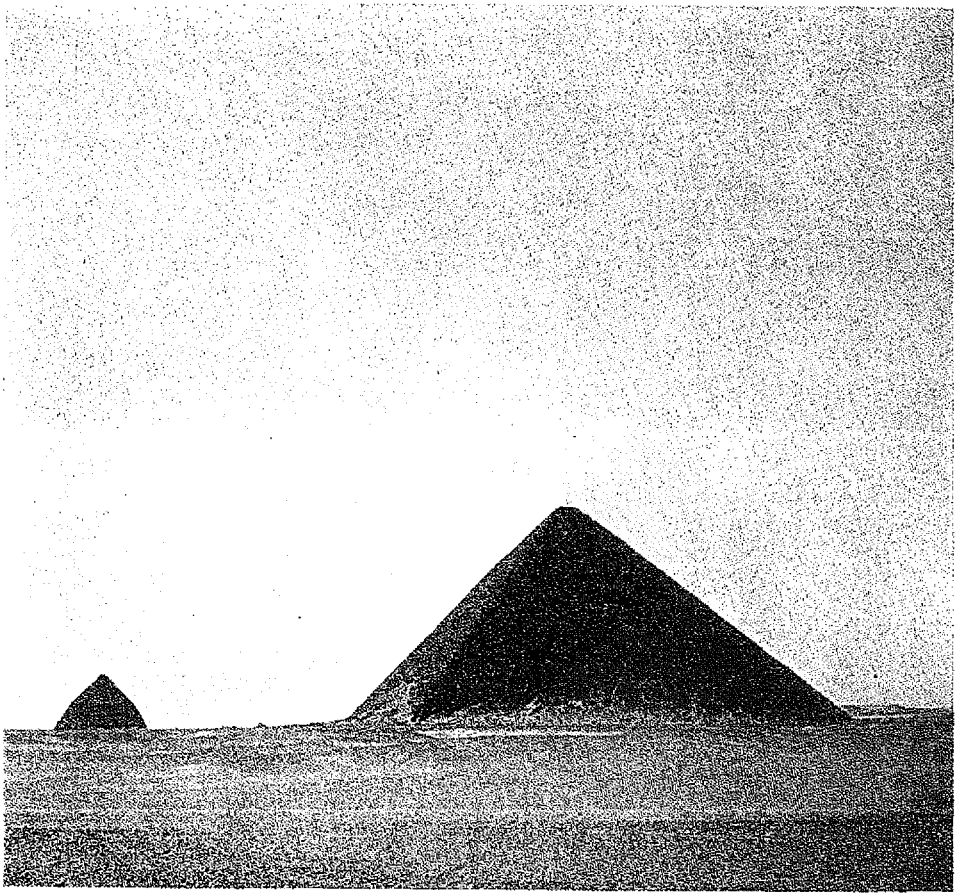


VI. Patio del Heb-Sed con sus capillas. Complejo de Zoser (cf. pág. 270).

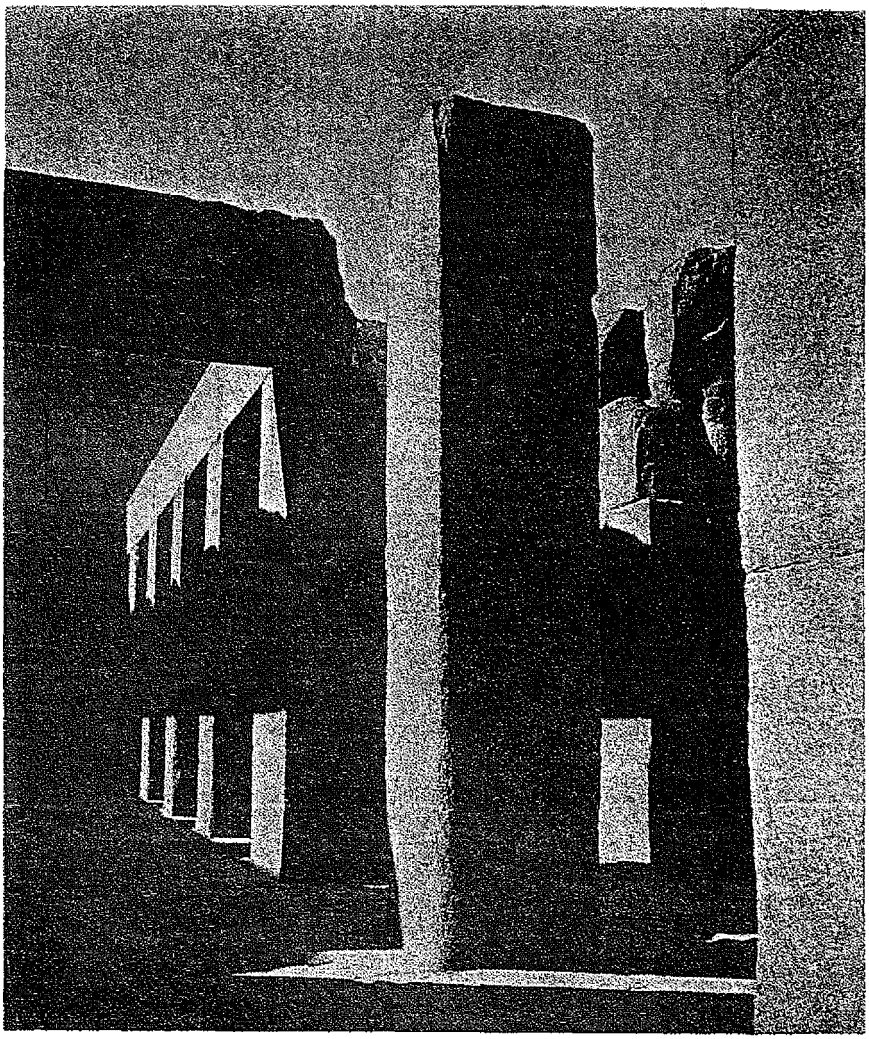


VII. La pirámide quebrada de Sneferu. Dahshur (cf. págs. 292 y ss.).

VIII. Cubierta de la pirámide quebrada (cf. pág. 298).

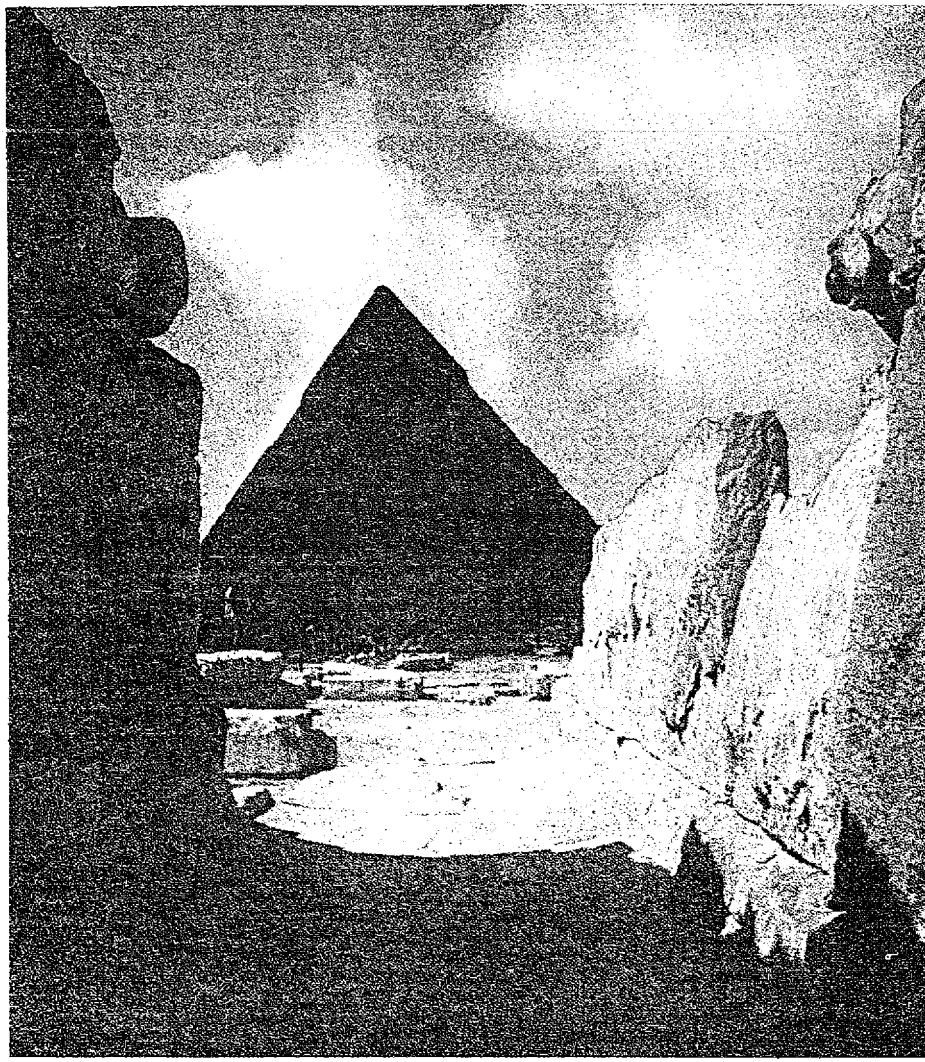


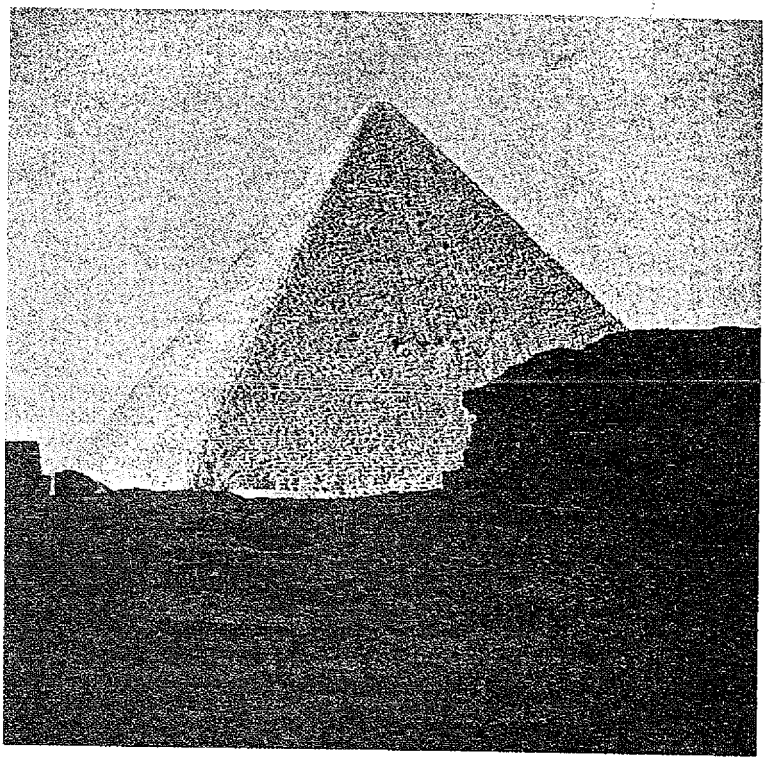
IX. La primera pirámide verdadera: La tercera pirámide de Snefru. Al fondo, la pirámide quebrada Dahshur (cf. págs. 292, 295 y ss.).



X. Templo del valle de Kefrén: Vista del interior desde la entrada. Gizeh (cf. págs. 309 y ss.).

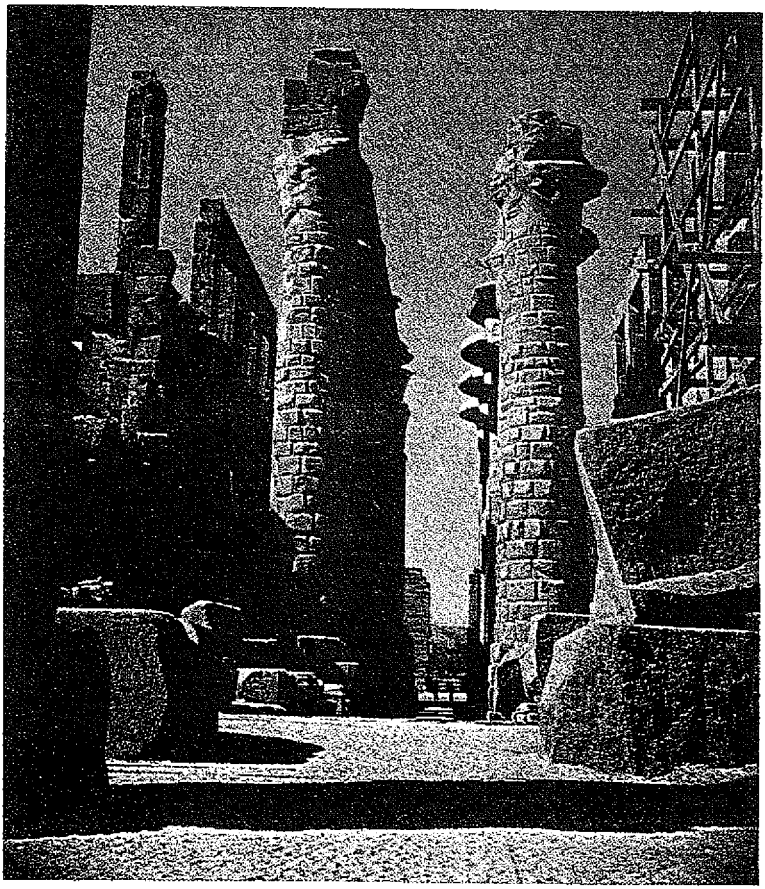
XI. Pirámide al atardecer: La pirámide de Kefrén, en Gizeh (cf. pág. 475).

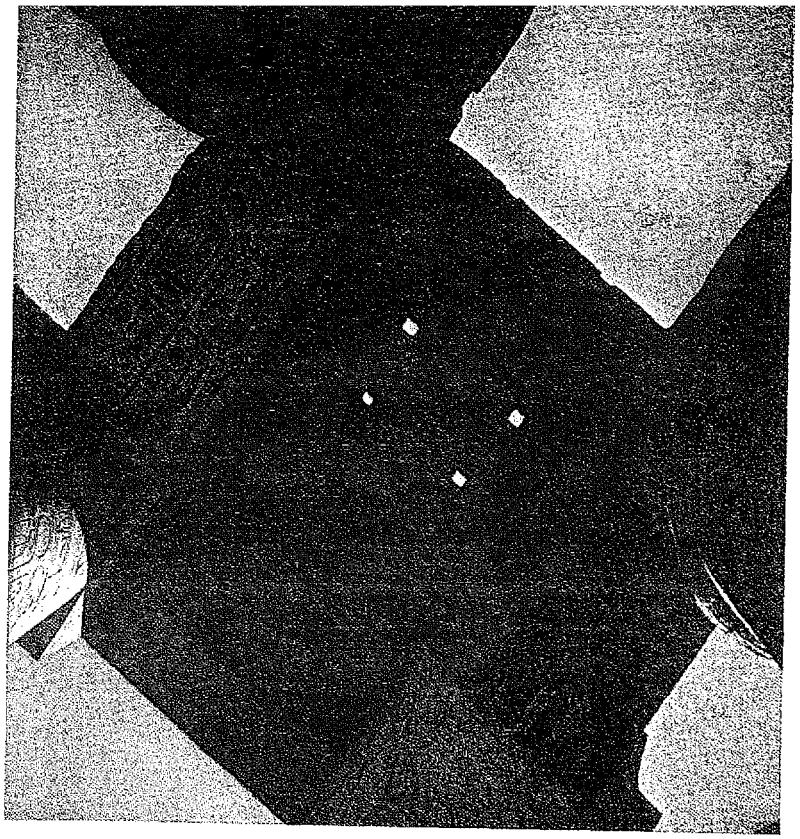




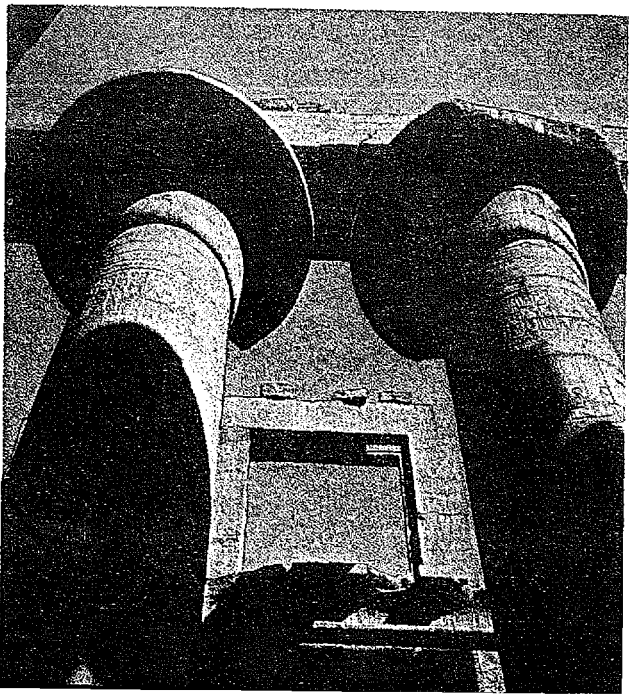
XII. Pirámide al mediodía: La pirámide de Keops, en Gizeh (cf. pág. 299).

XIII. La gran sala hipóstila de Karnak vista desde el oeste (cf. pág. 364).

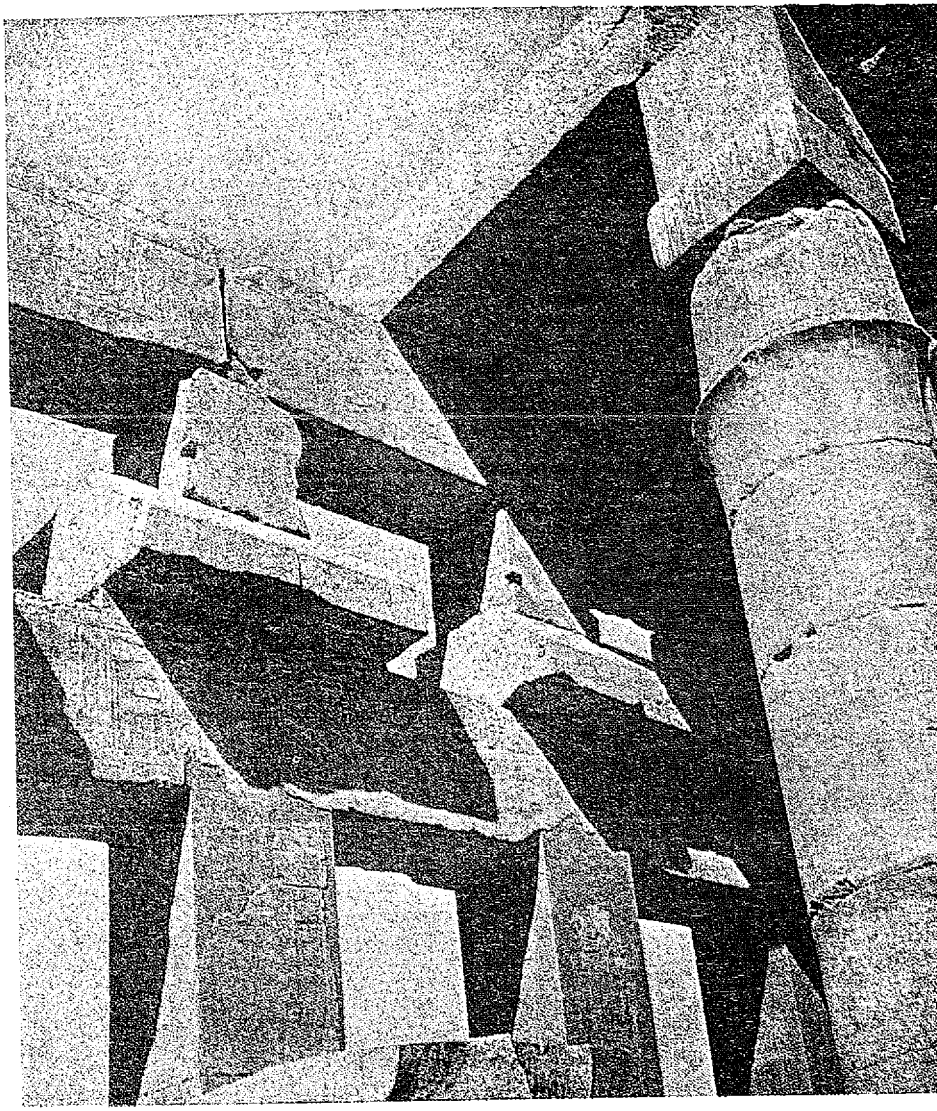




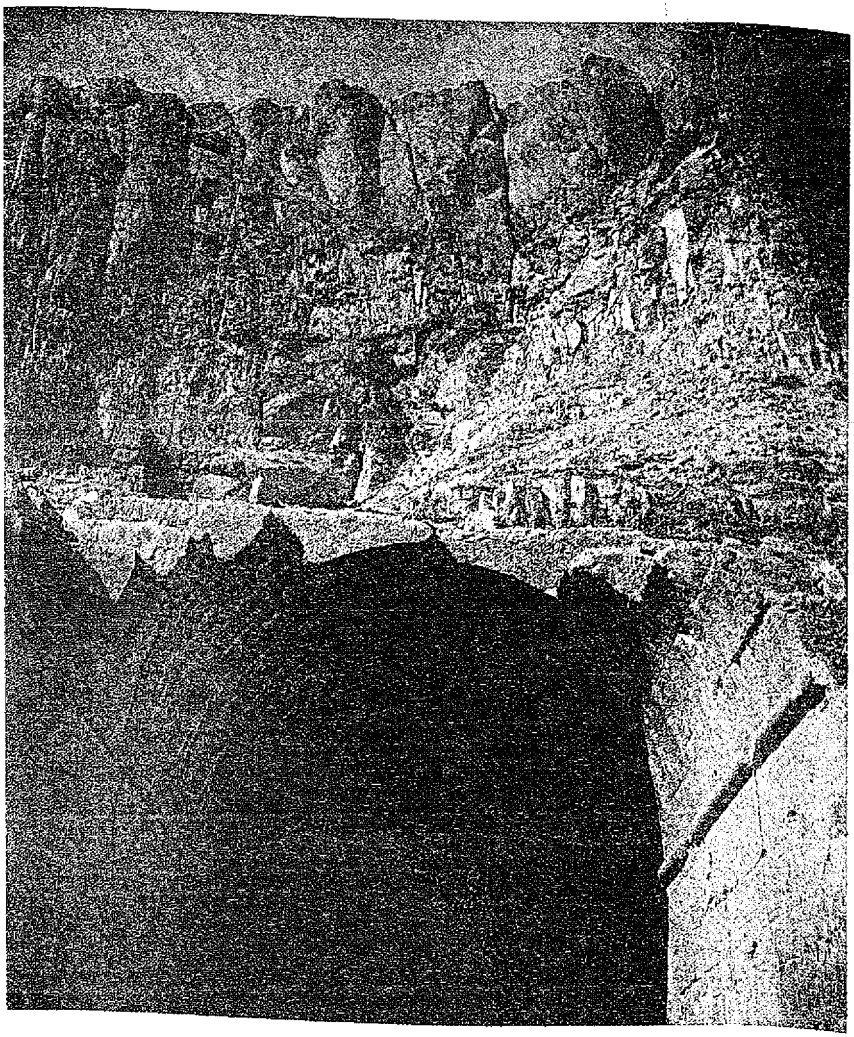
XIV. Plancha del techo con cuatro pequeños agujeros para la entrada de la luz. Gran sala hipóstila de Karnak (cf. pág. 372).



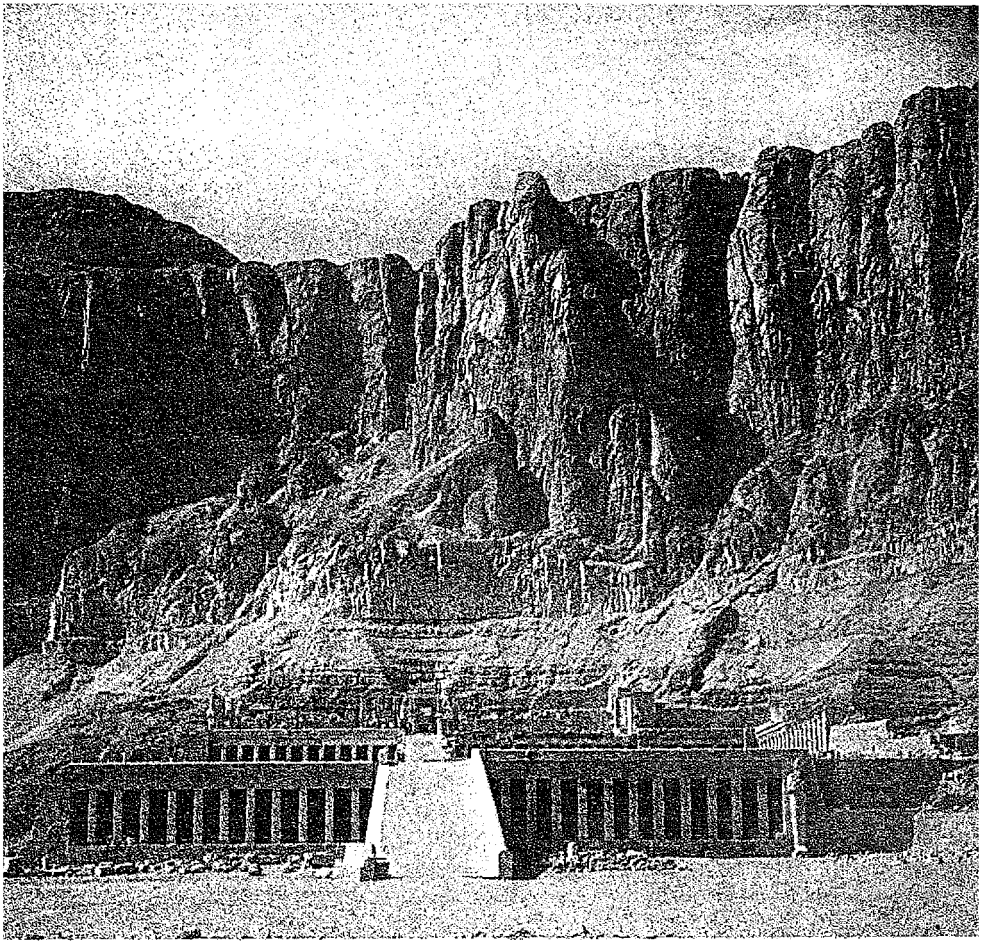
XV. Ventana del piso alto sin su enrejado de piedra. Gran sala hipóstila de Karnak (cf. pág. 373).



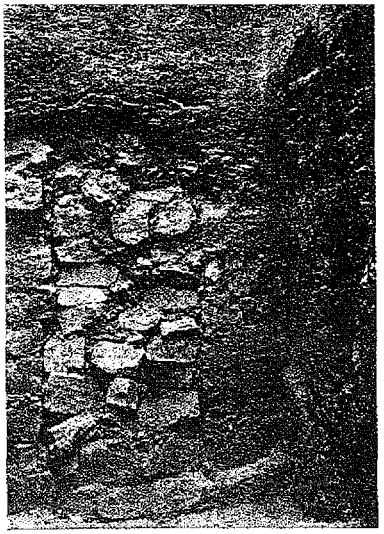
XVI. Elementos estructurales de la sala de ceremonias de Tutmosis III. Karnak (cf. pág. 353).



XVII. Bóveda de la capilla de Hator en el templo funerario de Hatsepsut. Deir el-Bahari (cf. pág. 402).

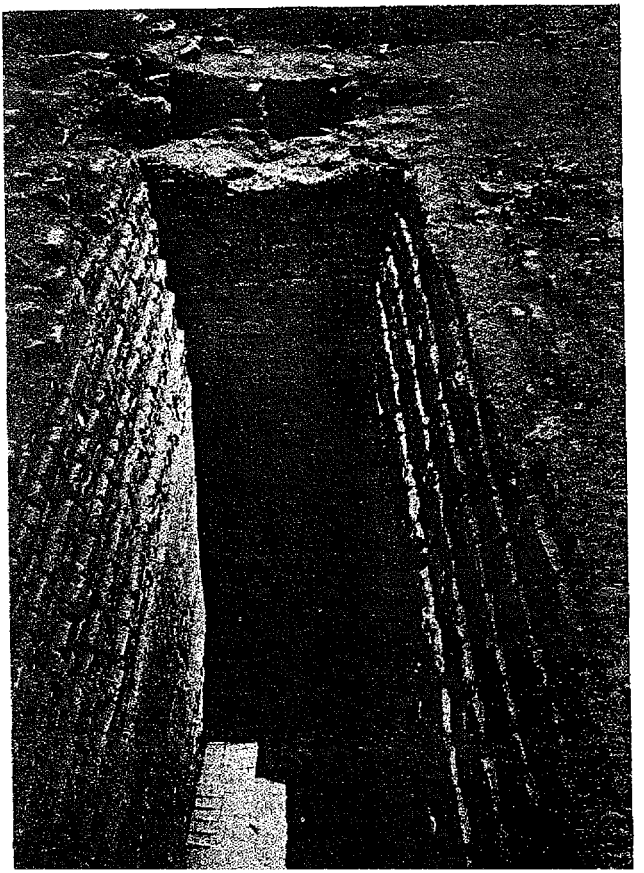


XVIII. Templo funerario de Hatsepsut con sus terrazas (cf. pág. 402).

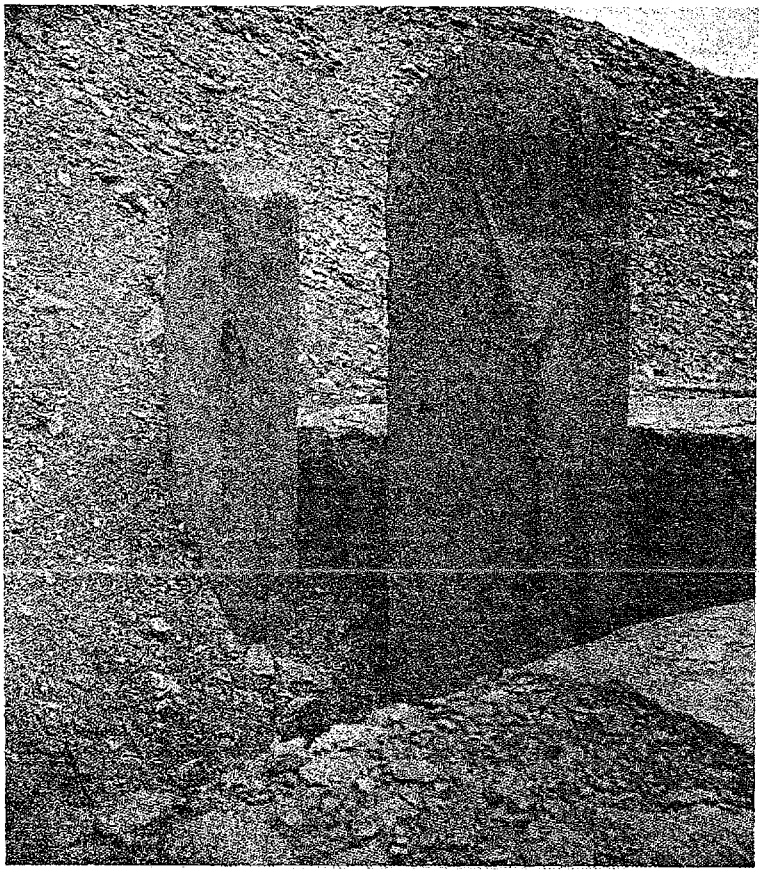


180. Entrada inviolada de la pirámide inacabada, bloqueada por una pared de tosca construcción.

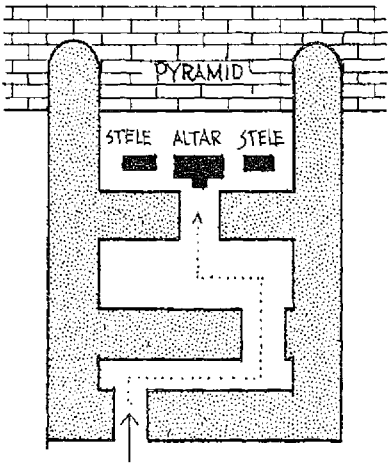
181. Entrada abierta a la pirámide inacabada.



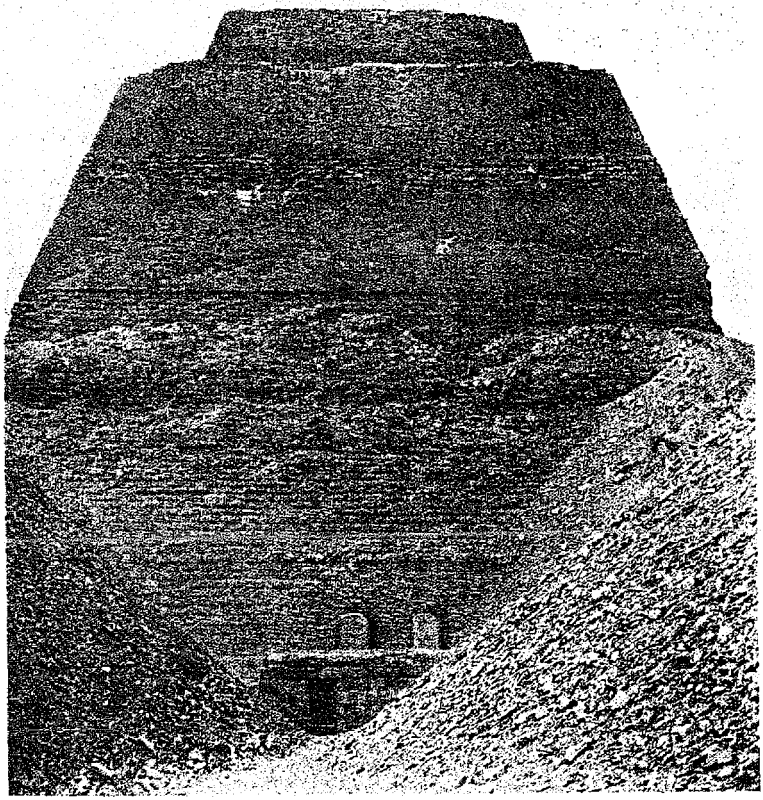
182. Entrada a la pirámide inacabada, mostrando los altos muros de contención, esmeradamente construidos y ligeramente escalonados.



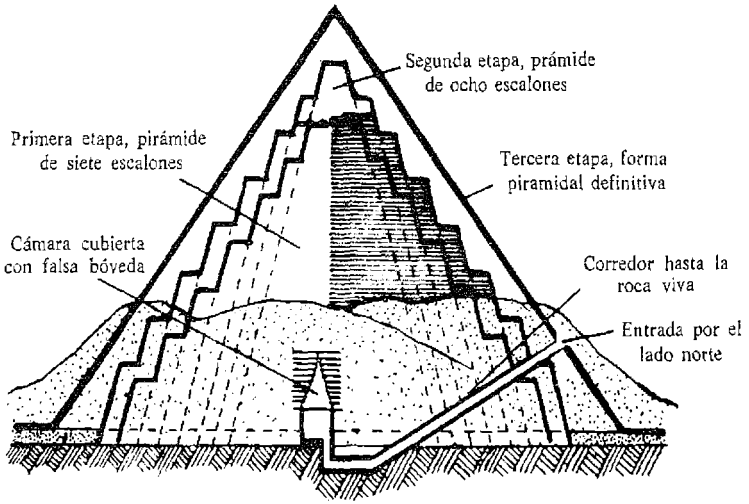
183. Estelas delante del templo funerario de Meidum: Estas dos estelas, rematadas en redondo, se alzan delante de un pequeño templo funerario adosado a la cara oriental de la pirámide. La mesa de ofrendas está enterrada bajo el relleno de cascotes en el pequeño patio de delante del templo.



184. Plano del templo funerario de Meidum: La entrada asimétrica desde el antepatio del templo está protegida por un couloir à chicane. *Dibujo según original de Flinders Petrie.*



185. Cara oriental de la pirámide de Meidum: Sólo se conservan unos pocos de los altos escalones de la pirámide. Las dos estelas de la fig. 183 pueden verse por encima del techo del templo funerario, de tres metros de altura. La sencillez del pequeño patio del templo de Meidum con su mesa de ofrendas y las dos estelas fue mantenida en las grandes pirámides de Gizeh, aunque fronteada por los nuevos patios monumentales del templo de las ofrendas.



186. Pirámide de Meidum: Sección transversal norte-sur. Dibujo según Flinders Petrie.

bio de programa. Las representaciones arquitectónicas de la vida terrena diaria han desaparecido para siempre. El aspecto amable del complejo funerario de Zoser ha cedido el paso al severo ritual necesario para transformar al rey difunto en un dios viviente. La organización arquitectónica esencial (de la cual hablaremos más adelante) está representada aquí en pequeña escala —templo del valle, calzada ascendente, templo funerario— antes de alcanzar la definitiva cámara sepulcral dentro de la pirámide. Apenas conocemos algo del templo del valle. La vía de acceso casi no se distingue. Solamente queda el pequeño templo funerario, adosado al centro de la cara oriental de la pirámide. Es un poco más amplio que una de las capillas del Heb-Sed del complejo de Zoser.

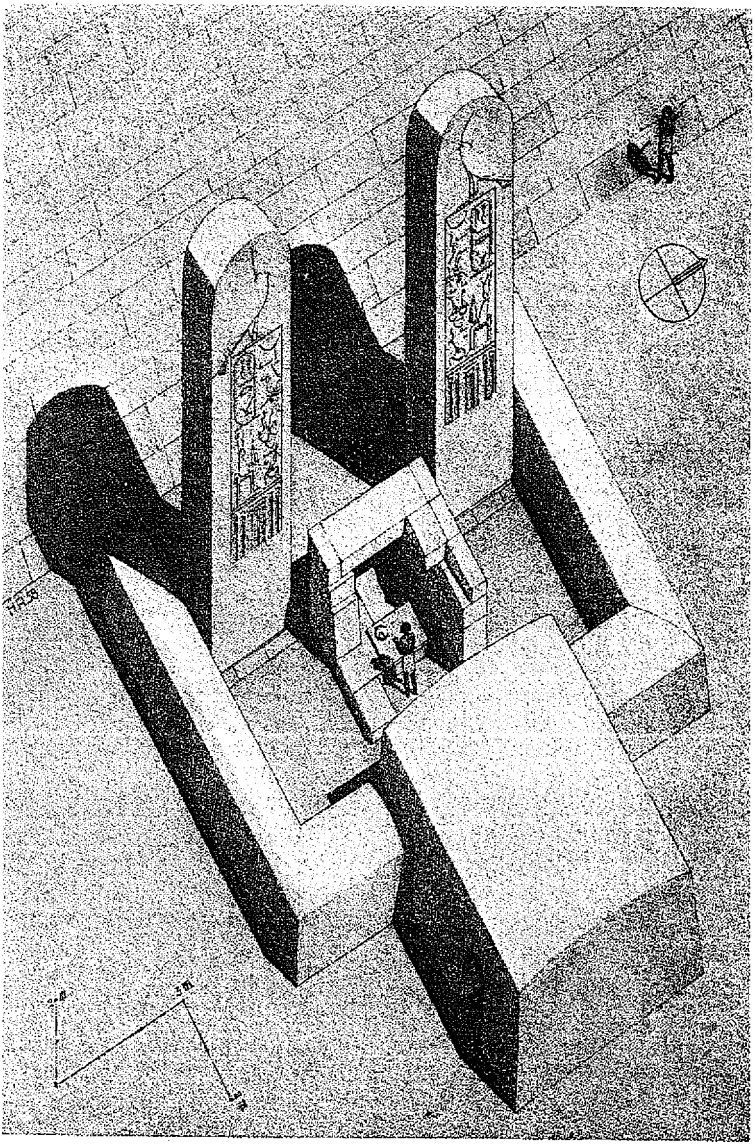
Dahshur: la pirámide quebrada

La primera de las dos pirámides que Snefru construyó en Dahshur tiene una fuerte inclinación en su parte inferior: 54°. El ángulo de la parte superior disminuye hasta 43°. La altura total era de unos 97 metros. Una explicación de la «inclinación» es que la pirámide fue «acabada precipitadamente», y en 1839 se confirmó «que las piedras de la parte superior fueron colocadas con menos cuidado que las de abajo» (Edwards, 1961, pág. 71). Pero «Varille cree que sería preferible llamarla la 'pirámide doble' o la 'pirámide de dos pendientes'. No cree que la doble pendiente sea resultado de una vacilación del arquitecto. Para él corresponde a la característica de dualidad que expresa la pirámide misma (contiene dos cámaras funerarias), y es sólo la materialización, en términos arquitectónicos, de una idea simbólica» (Vandier, 1954, II, pág. 16). Esta teoría está corroborada por las paredes bajas del templo del valle, las cuales muestran una doble inclinación similar.

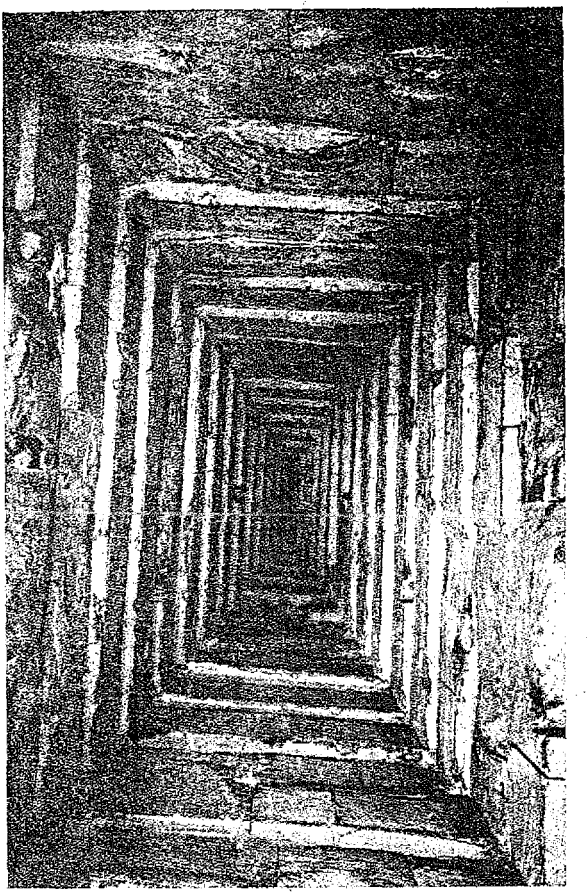
La pirámide quebrada no solamente tiene dos pendientes diferentes, sino que también tiene dos cámaras independientes. A una se entra, como es lo normal, desde el centro del lado norte de la pirámide, y a la otra desde el lado oeste, lo cual nunca se repitió. El corredor que desciende desde la entrada norte acaba en una cámara rectangular de 17,30 metros de altura. Esta altura está lograda gracias a una construcción en salidizo asombrosamente audaz: «Todas las hiladas sobresalen 15 cm en los cuatro lados» (Fakhry, 1959, pág. 47). Por consiguiente, podemos ver que incluso en un período de búsqueda de la forma tipo de la pirámide, los constructores tuvieron habilidad y valor para abordar impresionantes problemas de abovedamiento. La magnífica Gran Galería de la pirámide de Keops, que conduce a la cámara funeraria, también empleó el salidizo a lo largo de sus dos paredes paralelas.

El templo del valle de la pirámide quebrada no ha sido excavado hasta fecha reciente por Ahmed Fakhry, con reconstrucción de Ricke *(ibíd.,* págs. 106-117). En alguna medida podemos estudiar aquí la aparición del conjunto piramidal: templo del valle, calzada ascendente, templo de ofrendas y pirámide.

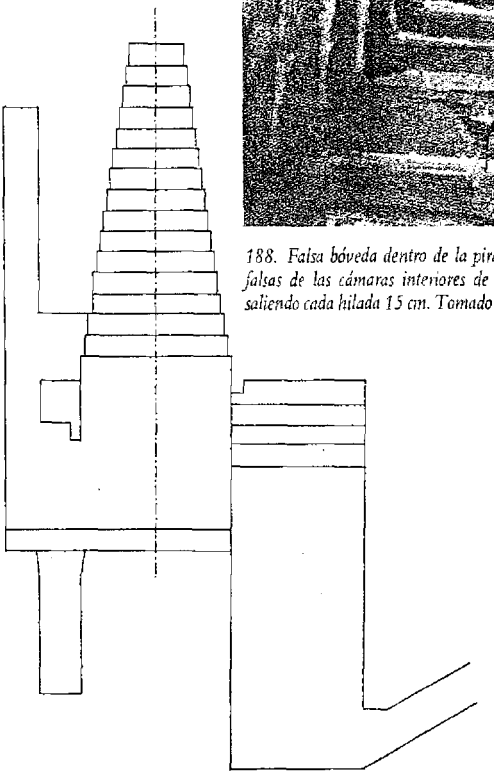
Las dimensiones de las zonas ceremoniales son mayores que las de Meidum. Aunque el templo de ofrendas, que se apoya contra la pirámide, es sólo ligeramente mayor, el templo del valle tiene ya una planta muy evolucionada: antecámara techada y espacioso patio interior con dos series de cinco pilares situados de-



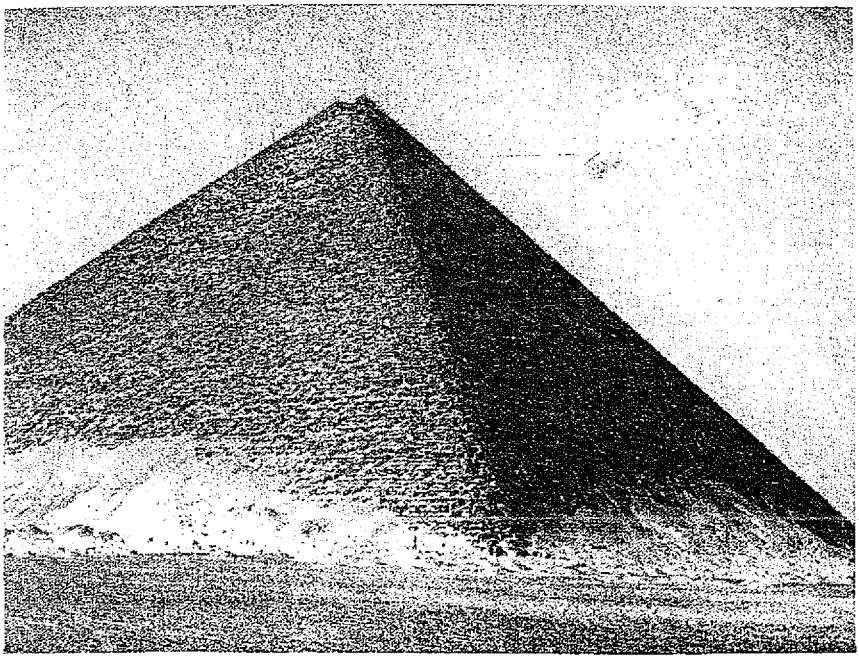
187. Templo de ofrendas de la pirámide quebrada de Dahshur: La esmerada reconstrucción de Ricke ofrece una buena visión de la sencilla forma del templo de ofrendas a comienzos de la IV Dinastía. Los elementos son los mismos que en Meidum: entrada cubierta, altar al aire libre y entre dos estelas colocadas delante de la pirámide. Tomado de Fakhry.



188. Falsa bóveda dentro de la pirámide quebrada: Una de las altas bóvedas falsas de las cámaras interiores de esta pirámide. Altura: 19 metros, sobresaliendo cada hilada 15 cm. Tomado de Fakhry.



189. Pirámide quebrada: Sección este-oeste a través de la cámara baja, mostrando la falsa bóveda. Los lados de esta pirámide tienen dos diferentes ángulos de inclinación (cf. lámina VII). Dibujo basado en Fakhry.



190. Pirámide norte de Snefru: La primera pirámide auténtica, cerca de la primitiva pirámide quebrada del rey (cf. lám. IX). No queda ninguna de las piedras de revestimiento de los lados y los ángulos están redondeados. Estructura de arenisca roja de una cantera local. Bloques de dimensiones considerables. La base abarca tanto terreno como la de la pirámide de Keops.

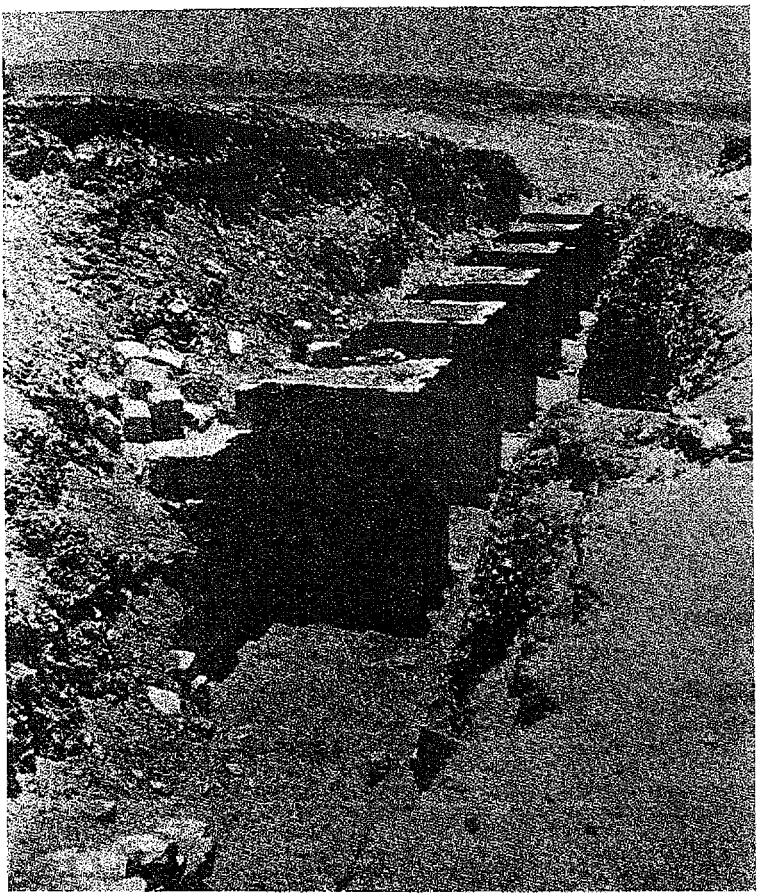
lante de seis nichos que contienen estatuas del rey y que están tallados en un solo cuerpo con las paredes de los nichos.

Dahshur: la primera «pirámide verdadera»

Sobre la llanura desértica, a menos de un kilómetro al norte de la pirámide quebrada, Snefru construyó la primera pirámide donde se lograría la forma tipo. Se la conoce hoy frecuentemente por la pirámide roja, debido al color de sus bloques, los cuales proceden de una cantera local. Originalmente, como las demás pirámides, fue revestida con una capa de piedra caliza pulimentada de Tura. Sus ángulos aparecen hoy redondeados. La zona circundante no ha sido completamente excavada.

Su inclinación (43° 30') es casi la misma que la de la parte superior de la pirámide quebrada. Sus proporciones le confieren un aspecto achaparrado. La pirámide de Keops tiene solamente ocho grados más de pendiente, pero ese pequeño aumento del ángulo de inclinación produce un impulso ascensional mucho mayor.

Solamente en Dahshur, adonde no acuden los turistas y no existen residuos dejados por excavaciones, podemos apreciar el poder que emana de las pirámides. Aquí, en el desierto, la tierra aparece como si fuera contemplada desde las alturas astronómicas: intangible, inmaterial. No existe nada más. Las dos pirámides se al-

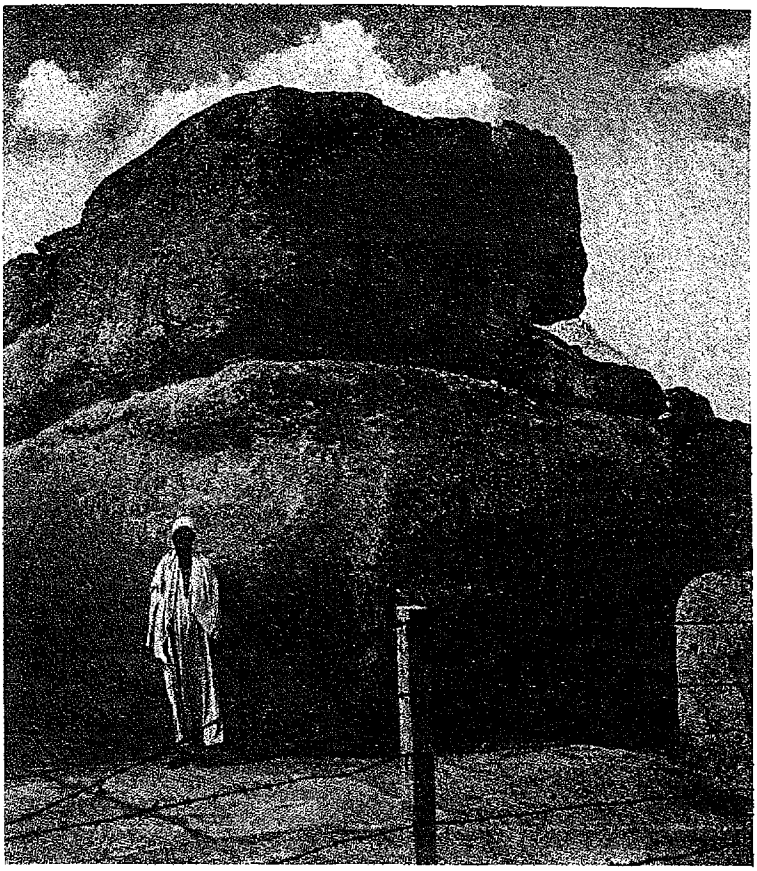


191. Muro de cerramiento de la pirámide inacabada: Sus bloques, aunque pequeños (50 cm), son ya de doble tamaño que los empleados en el complejo de Zoser. Saqqara, finales de la III Dinastía.

zan sobre un llano interminable enfrentado solamente al cosmos. El cielo se arquea sobre ellas como la figura de la diosa Nut. Todo lo terrestre ha desaparecido y el hombre comprende lo que significa hallarse ante la eternidad.

Sobre la fase experimental

Raramente en la historia de la arquitectura es posible contemplar tan de cerca la creación de una forma monumental como en estas soberbias construcciones. El proceso puede percibirse en todos sus aspectos: ampliación de la experiencia en



192. Bloques gigantescos del llamado templo de la Esfinge, cerca del templo del valle de Kefrén: En un solo siglo los egipcios aprendieron a manejar bloques de piedra, desde los pequeños ladrillos hasta las piedras megalíticas de treinta toneladas de peso. IV Dinastía.

los conocimientos técnicos, en la organización ritualista y en el contenido simbólico de las formas recién surgidas.

La experiencia creciente en el manejo de la piedra

Nos hallamos en medio de avances técnicos sin igual en la historia egipcia. Los nuevos problemas de utilización de la piedra como material de construcción fueron resueltos con asombrosa rapidez en el espacio de un solo siglo. Las dimensiones de los bloques de piedra se hicieron cada vez mayores, desde los pequeños sillares, de veinticinco centímetros, del complejo funerario de Zoser hasta los grandes bloques de piedra caliza de las pirámides de Gizeh y las rocas megalíticas

de dieciocho a treinta toneladas que componen el llamado templo de la Esfinge, cerca del templo del valle de Kefrén.

Grandes porciones de la cubierta de la pirámide quebrada de Dahshur se conservan todavía, demostrando que ya por entonces los constructores sabían construir sólida y firmemente los inmensos planos inclinados. Las superficies pulimentadas están compuestas por un mosaico de bloques cuneiformes, cada uno de dos metros de largo aproximadamente, introducidos en el cuerpo de la pirámide. Un lugar donde la superficie está deteriorada parece como una grieta glaciar, y desde él podemos advertir el maravilloso instinto artesanal que hizo posibles experimentos tan audaces.

Más impresionantes aún que la ejecución, en este período, son los conocimientos técnicos que hicieron posible la construcción estable de los lados en pendiente de las pirámides. Las hiladas están construidas independientemente, en ángulo agudo, para contrarrestar fuerzas disgregadoras como la dilatación de las juntas. Como Auguste Choisy observó en *L'Art de bâtir chez les Égyptiens* (1904), las capas inclinadas independientes de la pirámide se apoyan entre sí. Probablemente Imhotep inventó las hiladas inclinadas cuando transformó la primitiva mastaba en la pirámide escalonada de Zoser. Las mastabas se construían con las tradicionales hiladas horizontales, pero en la pirámide escalonada las hiladas siguieron el ángulo de la pendiente (Lauer, 1936, I, págs. 17-18). Donde dos hiladas se encuentran en ángulo recto, hay que evitar que una línea biseque el ángulo, lo cual se consiguió inclinando las hiladas ligeramente cuando se acercaban a las esquinas. Las dos hiladas lindantes podían así reunirse en un lecho curvo sin agrietar la junta, como demuestra Lauer en su dibujo. El sistema puede observarse mejor en la pirámide inacabada (Goneim, 1956, págs. 52-54). Nuestra fotografía muestra la ligera inclinación hacia arriba de los bloques de esquina, así como la curvatura hacia dentro de toda la hilada.

Una construcción para la eternidad

Las pirámides son fundamentalmente distintas de las masas montañosas. Sus lados están construidos en capas independientes, como los cortes anulares de un árbol traducidos a abstracta técnica de ingeniería.

En la pirámide escalonada de Zoser podemos seguir por primera vez los progresos de la experiencia en la construcción con piedra. Al principio estático que garantizaba la solidez de esta alta estructura se llegó a través de la yuxtaposición, recientemente inventada, de las paredes inclinadas, lo cual exigía una ejecución muy precisa.

Las pirámides fueron construidas con una sorprendente intuición de las leyes de la estática y del movimiento de fuerzas. Los volúmenes acumulados como montones de escombros no pueden resistir los terremotos o los agravios del

tiempo, y las pirámides de las últimas dinastías, que no siguieron los prudentes principios de los tiempos antiguos, se han derrumbado y perdido su forma.

El juego de fuerzas que se produce dentro de la pirámide ha sido analizado por un ingeniero suizo, H. Rössler (1952), quien explica que la gran resistencia de las pirámides sólo se debe en parte a su enorme peso muerto, procediendo en gran medida de fuerzas de consolidación cuya intensidad aumenta con la altura. Uno de los diagramas de Rössler indica cómo los empujes horizontales a todos los niveles están dirigidos hacia el núcleo central para reforzar la estructura. A causa de la inclinación de las paredes, el treinta y cinco por ciento de los empujes verticales es transmitido al núcleo interior, llegando desde la base hasta la cúspide y siendo arrastrado el resto por la gravedad al lecho rocoso. Así la estabilidad de la pirámide aumenta con su altura. Rössler compara el empleo de hiladas inclinadas casi independientes de la pirámide con las juntas de dilatación de la construcción de hormigón.

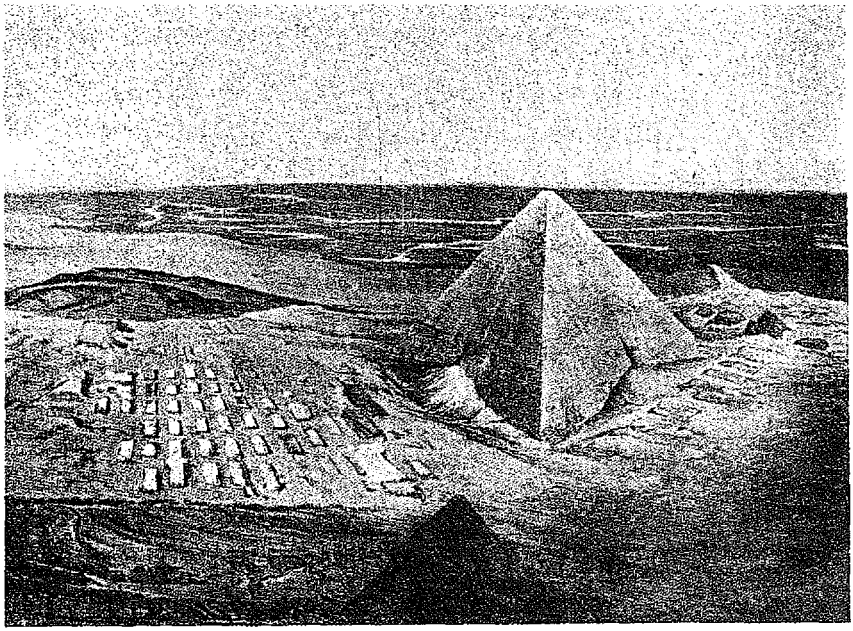
No entramos aquí en la discusión del modo en que fueron erigidas las pirámides (Lauer, 1948, págs. 161-185), pero puede observarse que la teoría principal, desde la época de Borchardt (1928), ha estado fundada en la existencia de unas rampas que corrían perpendicularmente a la cara de la pirámide. I.E.S. Edwards sugiere que las rampas de construcción pueden haber sido paralelas a los lados más que perpendiculares a ellos (1961, pág. 221), y, en 1953-1954, Goneim declara: «En tres lados de la estructura encontré huellas de lo que son, casi con seguridad, muros de contención de construcción... Una vez acabada la pirámide, la rampa y los muros de contención habrían sido retirados gradualmente cuando las piedras de la cubierta fueran colocadas» (1956, pág. 71).

Recientemente, tanto Rössler como el egiptólogo Dows Dunham han sugerido que la pirámide misma proporcionó su propia plataforma de trabajo. Dunham señala también que el trabajo era mucho más complicado de lo que un ingeniero moderno podría suponer, ya que «no hay pruebas de que en la IV Dinastía se conocieran la rueda, la polea o la grúa... También sabemos que los egipcios de la Edad de las Pirámides no tenían animales de carga y que la fuerza utilizada tenía que ser necesariamente la de hombres tirando de cuerdas» (1956, pág. 161). Dunham descarta la idea de rampas perpendiculares como poco práctica y considera que las rampas rodeando el cuerpo de la pirámide y creciendo al mismo tiempo que éste son «una sugerencia plausible» (pág. 165). Esta sugerencia se halla incorporada a una maqueta (Museo de Ciencias de Boston) de la pirámide de Micerino en construcción.

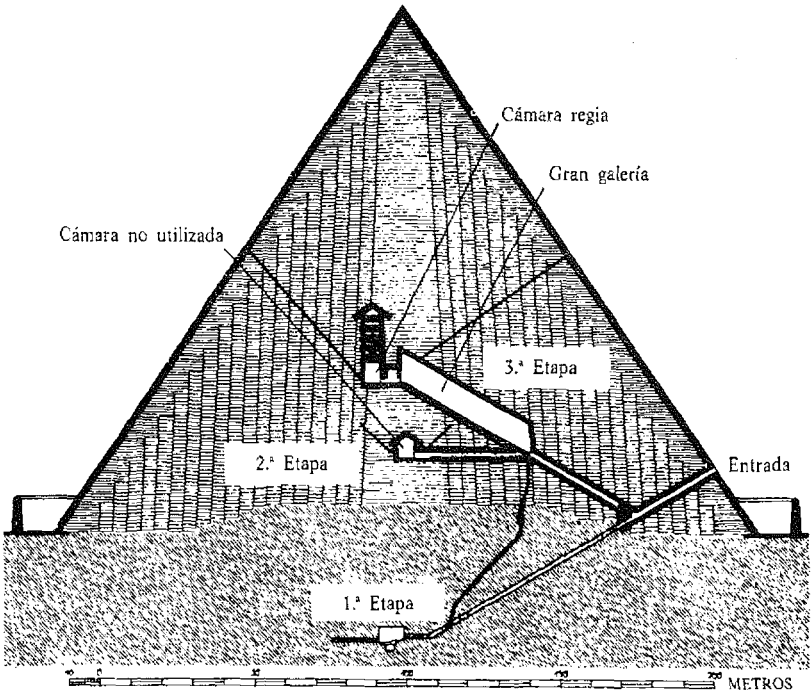
La gran pirámide de Keops, de la IV Dinastía

Insuperada en altura, tamaño y calidad de construcción, la pirámide de Keops ha llegado a ser casi un símbolo de toda la arquitectura egipcia. Puesto que es la mejor conocida de todas las pirámides, diremos poco aquí sobre ella.

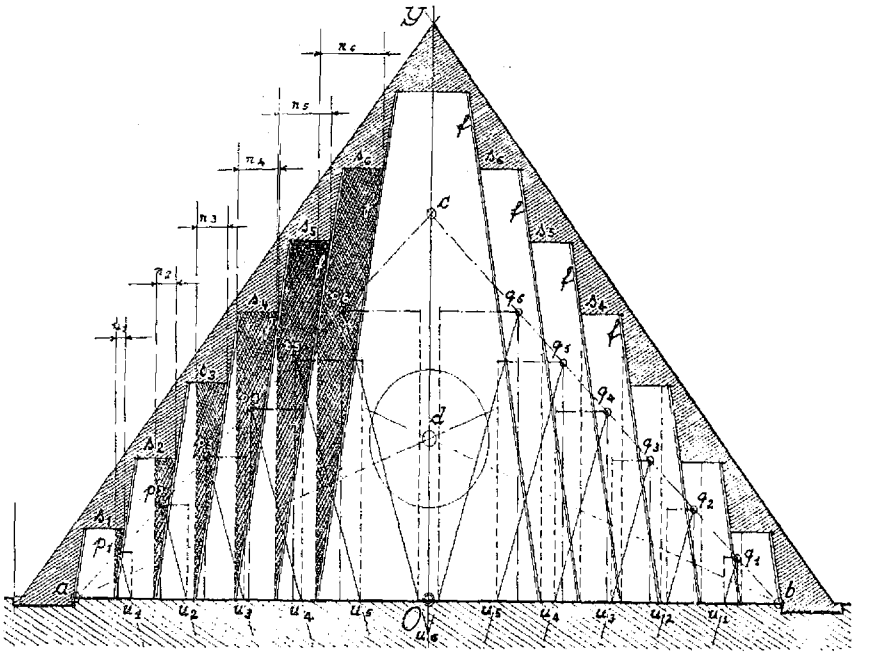
Es exactamente cuadrada, midiendo cada lado 233,70 metros; la altura es de 146 metros y la inclinación de 51° 52'. No existió ninguna duda con respecto a su forma exterior. Todo fue concebido de un solo golpe. Con esta pirámide queda superada la fase experimental. La precisión de su orientación hacia los cuatro



193. La pirámide de Keops a vista de pájaro. Litografía en color de Karl Richard Lepsius, hacia 1850. Tomado de Lepsius.



194. Pirámide de Keops: Sección transversal norte-sur mostrando los cambios efectuados en su plano interior. Dibujo según original de Borchardt.



195. La dinámica interior de una pirámide: H. Rössler, ingeniero suizo, calculó que los empujes horizontales están dirigidos hacia el núcleo central en todos los niveles, y así refuerzan la estabilidad de la estructura. El treinta y cinco por ciento de los empujes verticales es transmitido al núcleo interior, llegando desde la cúspide hasta la base. Solamente el resto de los empujes ha de ser transmitido al lecho rocoso. La estabilidad aumenta con la altura de la pirámide. Tomado de Rössler.

puntos cardinales es prodigiosa, difiriendo nada más que 3′ 6″ de la orientación exacta norte-sur (Lauer, 1948, pág. 186).

La planificación interior sufrió transformaciones. Pero el corredor de entrada en el lado norte, partiendo de 16,80 metros sobre el nivel del suelo e inclinándose hacia abajo en un ángulo de 26° 31′ 23″, permaneció inalterado. Se ha sugerido que este ángulo, prolongado hacia el cielo, coincidía con el de la estrella polar en el tiempo en que la pirámide fue construida.

Primera fase: el corredor de entrada seguía todo recto, penetrando profundamente en el lecho rocoso —un sistema ya anticuado—, terminando en una cámara que jamás fue utilizada, a gran profundidad bajo el eje vertical de la pirámide.

Segunda fase: un cambio de dirección. Un pasadizo ingeniosamente oculto conducía hacia arriba desde el corredor de entrada, siguiendo luego en horizontal y terminando en una cámara con techo bajo y bóveda falsa, semejante a la de la pirámide de Meidum.

Tercera fase: la transformación final. El corredor ascendente de la segunda fase continúa ininterrumpido hacia el centro de la pirámide. Hasta este punto de articulación el corredor tiene una altura inferior a la de un hombre y hay que agacharse para recorrerlo. Luego, repentinamente, desemboca en la Gran Galería, de 46,60 metros de longitud y 8,55 metros de altura. Sus paredes, compuestas de enormes bloques de piedra caliza muy pulimentada, se alzan verticalmente en siete secciones, cada uno ligeramente en salidizo. La construcción por este sistema, experimentada en la cámara rectangular de Snefru, de unos doce metros de altura, en la pirámide quebrada de Dahshur, se continúa aquí en escala monumental.

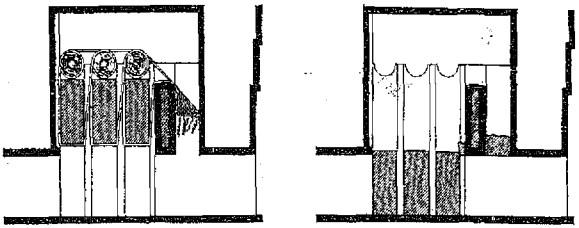
Las juntas de esta galería son tan finas que un historiador árabe señaló que ni una aguja, ni siquiera un pelo podrían introducirse entre las piedras. Para construir el enorme cuerpo de la pirámide, los egipcios actuaron con la precisión de un relojero. Los grandes bloques que forman las paredes de la galería no pueden haber sido introducidos a lo largo del bajo corredor que conduce desde la entrada. Borchardt demostró que la Gran Galería fue construida durante el proceso de erección de la pirámide (1932, pág. 5-12).

La Gran Galería fue utilizada solamente una vez: cuando la momia del rey, tendida en su féretro de madera, fue trasladada a lo largo de la misma hasta su cámara funeraria. El maravilloso gran barco hallado en 1954, intacto, en el lado sur de la pirámide, probablemente también fue utilizado sólo una vez para trasladar el cuerpo del rey difunto desde su residencia real hasta el templo del valle.

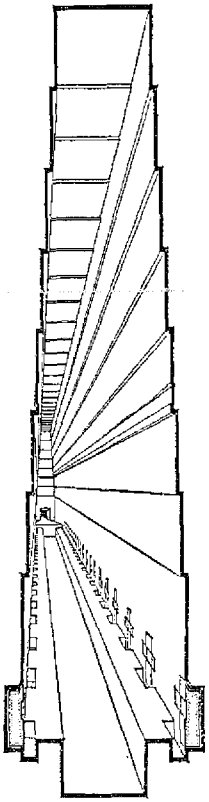
Si fuera necesaria alguna prueba de que esta arquitectura —sellada para siempre, inaccesible a todos los seres humanos desde que los ritos fúnebres hubieran terminado— fue creada como una ofrenda a los poderes invisibles, ya fueran éstos el *ka* o el rey-dios, esa prueba esta aquí.

Al final de la Gran Galería hay un alto escalón. Detrás de él un bajo corredor conduce a una especie de antecámara, protegida en tiempos por tres rastrillos de granito, y desde allí a la cámara funeraria del rey, revestida de granito, a cuarenta metros sobre el nivel del suelo. El sarcófago, sumamente sencillo, sin inscripciones, fue colocado en su lugar, cerca del ángulo noroeste de la cámara, durante la construcción de la pirámide. La tapa del sarcófago no ha sido hallada y éste estaba vacío.

Las paredes de la cámara funeraria están orientadas hacia los puntos cardinales. Sus dimensiones (10,46 × 5,23 metros), así como las del sarcófago, han sido escrupulosamente analizadas en busca de implicaciones simbólicas. La extrema precisión de las medidas y la exacta orientación norte-sur siempre han dado a la pirámide de Keops una posición especial, y de algunas de sus implicaciones hablaremos después (págs. 445 y ss.).



196. Tres rastrillos de la pirámide de Keops: Al final de la Gran Galería, protegían la entrada a la cámara del rey, la cual contenía su sarcófago. Tomado de Borchardt.



197. La Gran Galería de la pirámide de Keops que conduce a la cámara del rey: long. 51 m, alt. 9 m. Bóveda falsa con siete hiladas salientes. Tomado de Edwards.

Las pirámides más recientes

La forma abstracta de la pirámide nunca desapareció de la memoria egipcia ni del vocabulario de su arquitectura. Pero el entusiasmo que engendró la construcción de las pirámides no perduró. La perfección que alcanzaron en la IV Dinastía es única, como el Partenón.

No es misión nuestra seguir con detalle su ulterior destino, ya que esto ha sido consignado por otros autores (Lauer, 1948, págs. 86 y ss.; Vandier, 1954, II, págs. 101-209; Edwards, 1961, págs. 133-204). Bastarán unas pocas palabras.

Ni siquiera las pirámides de la V Dinastía perduraron. La construida en Saqqara por el primer rey, Userkaf, con toscos bloques, no es hoy sino un montón de escombros. Las de sus inmediatos sucesores, Sahure, Neferirkare, Niuserre, se ha-

llan en condiciones poco mejores. Fueron construidas como una modesta tríada en Abusir, a pocos kilómetros de Saqqara. Sus alturas oscilan entre cincuenta y setenta metros.

En el Imperio Medio, los reyes de la XII Dinastía trasladaron su capital a Tebas y la establecieron de nuevo en el norte. Sus pirámides de ladrillo (Dahshur, Lisht, Lahun) fueron erigidas sobre una red transversal de muros de contención. Esto no contribuyó a hacerlas resistentes, y poco queda de ellas. El bello piramidión de Amenemes III, de indestructible basalto, es el único fastial completo de una pirámide existente. Como los pectorales y otras piezas de joyería halladas en las tumbas, es una muestra de la artesanía sumamente refinada del período.

Mucho más significativo que estas ramificaciones es el templo funerario, en la necrópolis tebana, de Mentuhotep, fundador del Imperio Nuevo. Aquí la forma piramidal fue empleada para coronar un nuevo tipo de edificio; ya no indicaba el centro de la tumba, debajo del cual se extendía la tumba propiamente dicha.

Durante la decadencia de la monarquía y la influencia creciente de los señores feudales, las costumbres funerarias reales cambiaron. Los soberanos adoptaron el modelo de tumba rupestre, excavada directamente en la cara del risco, que fuera utilizado por los gobernadores de Elefantina durante la VI Dinastía. Mentuhotep dio a esta clase de tumba su forma monumental. La pirámide perdió su cualidad exclusiva cuando dejó de ser solamente un privilegio de los reyes.

Frecuentemente ocurre que en lugares remotos, en la periferia de una civilización, las viejas costumbres se conservan vivas o se desarrollan nuevamente desde el comienzo. Esto ocurrió con la pirámide. En Nubia, entre la Cuarta y la Quinta Cataratas, los soberanos etíopes erigieron unas ciento ochenta pirámides entre 750 a. C. y 350 d. C., repitiendo la evolución desde el simple montículo de grava hasta la pirámide.

Los reyes etíopes reinaron en Egipto durante un siglo. Debajo de la primera de estas pirámides situadas más al sur descansa Pianki, fundador de la XXV Dinastía. Dunham ha trazado cuidadosamente la evolución de estas diminutas pirámides (1950), pero no tienen nada en común con las sublimes alturas de sus antecesoras egipcias, permaneciendo agrupadas como las chozas de una aldea africana.

El conjunto arquitectónico de las pirámides

Ritos y forma arquitectónica

La aparición de la arquitectura de piedra está relacionada con otra innovación: el establecimiento de un escenario arquitectónico para un ritual muy elaborado. La transposición de símbolo y rito en forma arquitectónica nunca está ausente de la historia de la arquitectura. Pero en ningún período posterior tiene un contenido simbólico tan complicado como en esta fase inicial.

Todos los detalles de planificación de la pirámide, de las formas y proporciones de sus espacios, su número y situación tienen un significado simbólico y ritual. Se ha avanzado mucho en la evolución desde los templos de cañas de la I Dinastía, e incluso desde los templos mesopotámicos, los cuales siempre conservaron su sencilla organización original.

El tema de la totalidad del complejo lo constituían las etapas que había que cubrir para tranformar al rey difunto, de un ser todavía terrenal y temporal, en deidad eterna. La secuencia era aproximadamente como sigue: el cuerpo muerto era purificado y luego preparado para la eternidad (momificado). Estas operaciones dieron origen a un templo del valle a orillas de la vegetación, aislado pero unido con la tierra fértil. Pero el rey era más que un cadáver. Sus vínculos con el Alto y el Bajo Egipto y la seguridad de la continuación de su existencia eran expresados en la forma y la estructura del templo del valle por medio de series completas de estatuas funerarias, etcétera.

La situación de la meseta desértica, unos treinta metros más alta que el valle del Nilo, condujo a la creación de una calzada ascendente por la cual la momia del rey era conducida a su última estación, el templo de la pirámide, situado en el lado oriental de la misma. Este era el escenario de los ritos y recitados sacerdotales por los cuales el rey era transformado en dios antes de ser depositado para siempre en su sarcófago en el corazón de la pirámide.

Fases iniciales

La extraña complicación a que llegaron las prácticas rituales demuestra el enorme poder ejercido por los sacerdotes. Cada paso en la transformación del rey difunto en dios encuentra eco en el marco arquitectónico.

Como el logro de la forma tipo de la pirámide, esto no ocurrió de repente. Las tres pirámides de Snefru, la de Meidum y las dos de Dahshur, muestran etapas tanto en la evolución de la verdadera pirámide como en la de sus tres elementos asociados: templo del valle, calzada ascendente y templo de la pirámide. Pero tanto en Meidum como en Dahshur estas construcciones tenían proporciones modestas en comparación con las pirámides situadas cerca de ellas o con el imponente complejo funerario de Zoser. Las calzadas ascendentes que unían la fértil ribera con los pequeños templos de ofrendas quedaban al descubierto, expuestas al amontonamiento de las arenas. Tanto en Meidum como en Dahshur los lugares de ofrendas situados junto a la pirámides de Snefru eran sumamente primitivos. El de Meidum era simplemente un patio del tamaño de una habitación con un pequeño altar para las ofrendas al rey difunto. A la derecha y a la izquierda había una estela. Inmediatamente enfrente del espacio destinado a las ofrendas se alzaba una modesta estructura en forma de choza, simplemente una especie de barrera protectora para excluir de este lugar sagrado a los no autorizados. La pequeña y oscura edificación constaba de un pasillo de entrada bloqueado que solamente podía ser atravesado dando una doble vuelta *(couloir à chicane)*, que conocemos por las entradas a las muchas capillas de ofrendas en el patio del Heb-Sed de Zoser.

Casi nada se sabe del templo del valle de Meidum. Por consiguiente los egip-

tólogos esperaron con el mayor interés la excavación del de la pirámide quebrada de Dahshur, excavación que fue emprendida por Fakhry en 1951-1955. Los egiptólogos esperaban que ésta pudiera proporcionar información sobre las primeras etapas de la complicada disposición del templo del valle de Kefrén en Gizeh. «La construcción que fue levantada en el extremo inferior de la calzada ascendente era, por su situación lejos del límite de las tierras cultivadas y por su planificación, tan diferente de la situación de los templos del valle conocidos por nosotros desde Kefrén, que hay dudas sobre si llamarlo templo del valle», dice Ricke (Fakhry, 1959, pág. 106). Fakhry supone que en el límite de la tierra cultivada puede haber otro templo del valle.

El templo del valle de Dahshur, con su patio interior y sus dos series de columnas separadas por estrechos intercolumnios con nichos para estatuas, recuerda los templos funerarios en su evolución durante las tres generaciones siguientes. Este templo tiene poco en común con los templos del valle posteriores. Faltan los diferentes espacios que se necesitaban para la realización de los ritos del templo del valle. Los complicados ritos desarrollados tan marcadamente bajo Kefrén y Keops parecen aún surgir de repente.

El esquema, no obstante, existía ya: templo del valle, calzada ascendente y templo de ofrendas. «Sin embargo, si el esquema general de acuerdo con el cual fue dispuesta la pirámide sur de Snefru ha de ser considerado como un paso previo en la organización del trazado de todas las pirámides reales posteriores, entonces nuestra construcción debe también ser considerada como el punto de partida de la evolución de los templos del valle posteriores, e incluso como el primero de los templos del valle» (*ibíd.*, pág. 110).

La fase final

La repentina expansión del ritual que apareció bajo Snefru alcanzó su punto culminante en el enorme complejo erigido por su hijo Keops. Debe de haberse producido entonces algún cambio social. Generalizando, el enorme crecimiento de los ritos debió de ser consecuencia de un extraordinario aumento del poder de la clase sacerdotal. En las enormes salas y patios columnados recién creados, los himnos a Osiris y a Nut y los sortilegios escritos en los Textos de las Pirámides resonarían con fuerza impresionante. Todo es nuevo. La divinidad del rey y su culto alcanzan su punto culminante.

Paso a paso, los escasos vestigios del período experimental muestran cuán vacilantemente se desarrolló el complicado ritual hasta encontrar su forma definitiva en los conjuntos piramidales de Gizeh.

Heliópolis había sido el antiguo centro religioso y cultural, cuyos comienzos se pierden en la noche de los tiempos. Allí se había desarrollado un clero muy organizado e ingenioso que —como siempre en Egipto— mezclaba elementos entrelazados del norte y del sur.

«El poder imaginativo de los sacerdotes del Imperio Antiguo había llegado a ser tal, que fueron capaces de unir dos ciclos míticos completamente diferentes: el mito de Osiris [procedente del norte] y el viejo mito real del combate entre Horus y Set [procedente del sur]... y también elaborar el sistema de los nueve dio-

ses de Heliópolis [la Enéada] y transmitir todo esto a la posteridad en forma poética... Aunque desgraciadamente no puede darse la fecha exacta de este acontecimiento espiritual... tuvo lugar en la primera mitad del Imperio Antiguo... es decir en la primera mitad del tercer milenio» (Scharff, 1947, pág. 35). La creencia de que los Textos de las Pirámides proceden de un período muy temprano ha caído en desuso. En opinión de Scharff, dichos textos fueron redactados en la III o IV Dinastías (pág. 16). Como los rituales, eran nuevos en la edad de las pirámides, aun cuando su contenido se remontase a un período mucho más antiguo.

Los complejos piramidales de Gizeh se derivan de este movimiento religioso total. El poderoso intermediario indispensable tanto con el ritual como con el poder real era el clero. Solamente los sacerdotes podían cumplir lo que ellos mismos habían promulgado. La nueva arquitectura de piedra era un elemento necesario para el complicado ritual. Con gran imaginación Ricke y Schott intentan distinguir en la organización de la planta una proyección directa de ciertos sortilegios de los Textos de las Pirámides, e incluso la expansión y reducción de ciertos cultos, como el de Osiris (1950).

No solamente la amalgama de las tradiciones religiosas del sur y del norte, sino también la influencia del paisaje del desierto fue lo que dio origen a la organización arquitectónica de una de las series de rituales más complicada jamás inventada por el hombre: la sucesión del paso del río, templo del valle, calzada ascendente, templo de la pirámide y pirámide misma.

La relación entre estos ritos y la arquitectura a la que dieron lugar puede tal vez verse mejor en el templo del valle de Kefrén y en el templo de la pirámide de Micerino.

El templo del valle de Kefrén

El templo del valle de Kefrén es el único santuario de la IV Dinastía que todavía conserva su antigua grandeza, lo cual se debe probablemente a que permaneció oculto debajo de la arena del desierto hasta que fue detectado en 1853 por la aguda mirada de Mariette, quien fue a dar con él por su parte posterior cuando despejaba la arena de los alrededores de la Esfinge. La fachada del templo, que tenía puertas de seis metros de altura, permaneció bajo la arena hasta el comienzo de este siglo. Los únicos adornos de las paredes inclinadas de granito rosado pulimentado de Asuán eran unos hermosos jeroglíficos en relieve con el nombre y los títulos del rey.

La entrada al interior no conducía directamente a su meta. El sencillo pasadizo de doble recodo *(couloir à chicane)* que conducía al pequeño templo de ofrendas de Meidum, que todavía conserva la idea prehistórica, profundamente arraigada, de ocultar el santuario a la vista de los no iniciados, alcanza aquí una gran monumentalidad.

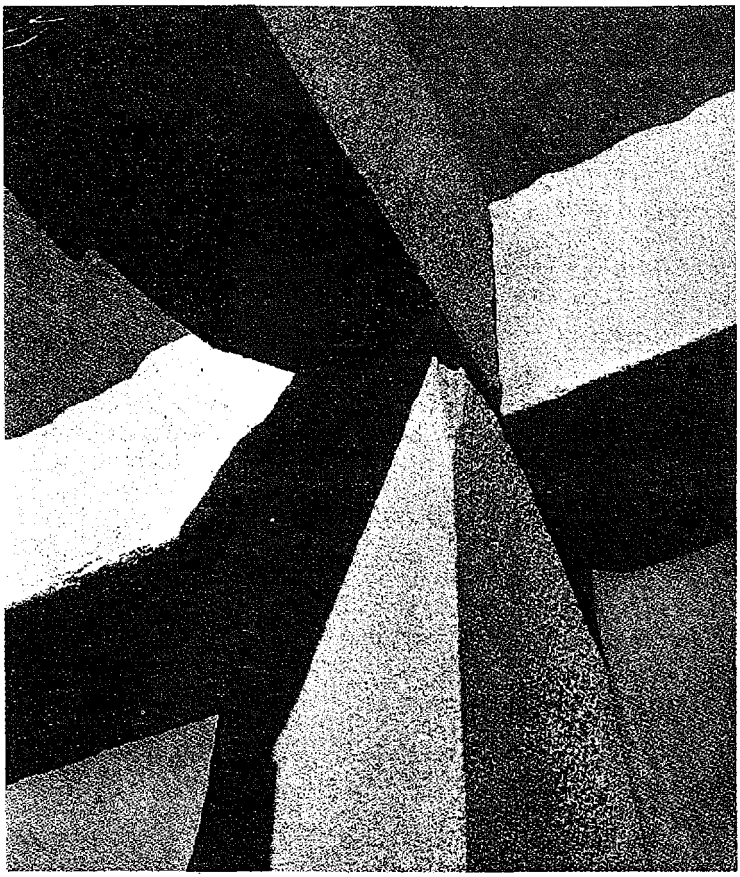
Las dos entradas correspondientes al Alto y Bajo Egipto están dispuestas simétricamente y aparecen en planta casi como dos tuberías conectadas entre sí. Sus vestíbulos se prolongan en el interior hasta una profundidad de 9,40 metros. Las paredes, los suelos y los techos son de granito pulimentado. Ambos vestíbulos

acaban en una pared lisa. Todos los demás espacios son más bajos. Un estrecho corredor conduce en ángulo recto a una larga antecámara rectangular de unos cuatro metros de altura solamente.

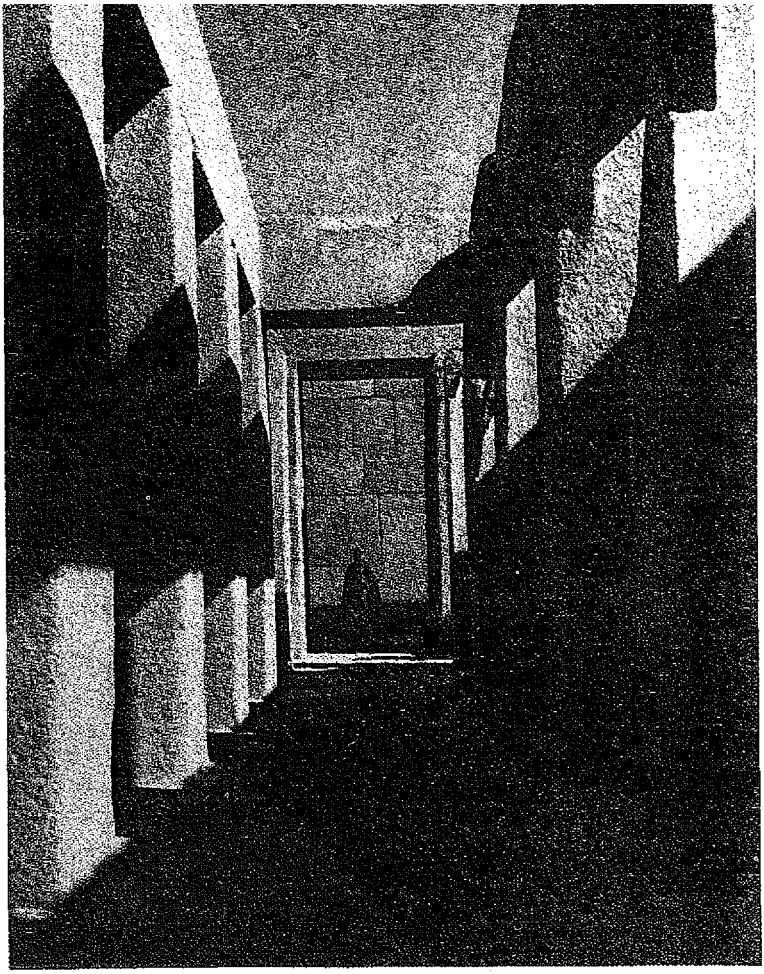
Desde aquí se entra al tramo transversal de la sala hipóstila en forma de T por medio de un corto corredor central.

¿Qué función tenían los diferentes espacios?

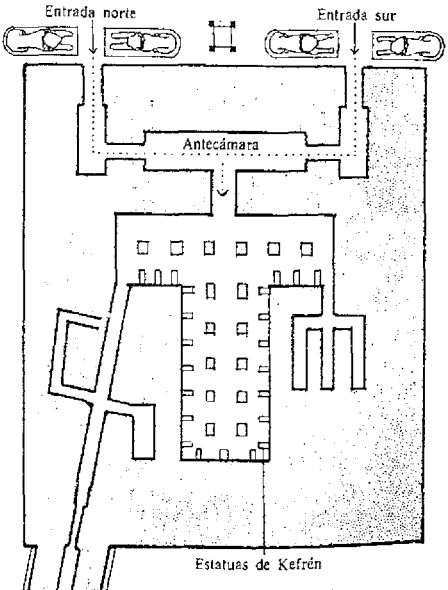
No hay unanimidad en cuanto a si el cuerpo del rey era purificado y embalsamado en otro lugar (Grdseloff, 1941, págs. 10-12) o si estas operaciones se llevaban a cabo en la azotea del templo del valle (Drioton, 1941, pág. 1013). En cualquier caso, la finalidad principal del templo del valle sería la de cumplir los ritos de purificación del cuerpo embalsamado y las ceremonias de «apertura de la boca» de las estatuas del *ka* del rey, como aclaró Grdseloff.



198. Construcción arquitrabada del templo del valle de Kefrén: Detalle. Los monolíticos pilares de granito de la nave central soportan macizos arquitrabes, también de granito.



199. Nave central del templo del valle de Kefrén, mirando hacia la antecámara (cf. lám. X).



200. Plano del templo del valle de Kefrén, 13 metros cuadrados. Alt. 14 metros. Paredes sumamente gruesas. Dibujo según original de Hölscher.

La sala hipóstila en forma de T

La gran sala hipóstila en forma de T, con sus dieciséis columnas monolíticas de granito, ha sido también interpretada de distintas maneras. La mayoría de los autores la considera como un espacio único y el escenario para la «apertura de la boca» de las veintitrés estatuas del rey que flanqueaban las paredes. Solamente después de que los sacerdotes hubieran realizado esta complicada ceremonia podían las estatuas recibir su *ka*.

Ricke, sin embargo, no ve esta sala como un espacio unificado, sino que considera que el tramo transversal era el lugar destinado para el embalsamamiento ritual y la nave larga el escenario para la «apertura de la boca». «Su forma monumental expresa la distinción ideal entre la artesanía de la momificación en un taller y el embalsamamiento ritual en un centro de culto» (1950, pág. 96).

Para la ejecución de estos ritos, que culminaban en la ceremonia de la «apertura de la boca», es muy probable que el féretro que contenía la momia fuera introducido en el espacio vacío que había en la nave central de la zona destinada a la apertura de la boca. «La unión ritual del lugar de embalsamamiento y el lugar para la 'apertura de la boca' ...se hace impresionantemente visible en la forma de construcción del templo del valle de Kefrén mediante la ingeniosa articulación de un tramo transversal de dos naves con una nave triple» (pág. 98).

Ninguna vacilación se manifiesta en el uso de los grandes bloques de piedra,

201. Nave izquierda del templo del valle de Kefrén: Reconstrucción. Solamente una luz tamizada y débil podía penetrar a través de estrechas aberturas horizontales abiertas en las planchas del techo y la pared, como antes en el corredor ceremonial de Zoser. Veintitrés estatuas de diorita de Kefrén se hallaban alrededor de las paredes de la cámara en forma de T. Tomado de Hölscher.

las columnas monolíticas cuadradas y las pesadas vigas. La horizontal y la vertical se encuentran directamente, sin intermediario. Es una arquitectura severa, completamente de acuerdo con los lúgubres rituales para los cuales estaba destinada y que conformaban todos los detalles de su estructura.

La calzada ascendente

Algunas veces, como aquí, hace falta la habilidad de un detective para localizar la entrada, estrecha y completamente asimétrica, a la calzada cubierta que corría más de quinientos metros en línea recta.

El templo funerario de Micerino

Los templos funerarios incorporados a las pirámides de Keops, Kefrén y Micerino expresan la culminación de los ritos fúnebres recientemente implantados por el monarca fallecido. En el mismo edificio se hallaban combinadas y sin embargo separadas dos funciones: lugar de veneración y altar para las ofrendas.

Había un espacio destinado a los servicios cotidianos para venerar al rey difunto, reservándose importantes donaciones para que dichos cultos pudieran continuar eternamente. La característica principal de esta zona era un gran patio interior donde se cantaban o recitaban los himnos y las plegarias.

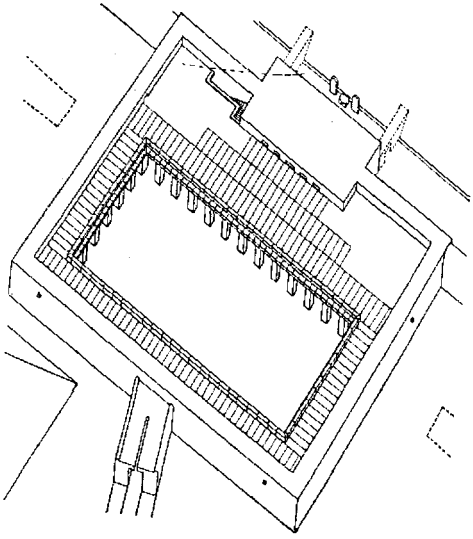
La primera aparición del patio interior en toda su magnitud fue en el templo funerario incorporado a la gran pirámide de Keops, pero sólo quedan vestigios de los negros pilares de basalto que lo rodeaban. Las investigaciones de Lauer y Ricke nos dan alguna idea del grandioso patetismo de su arquitectura (Lauer, 1948, pág. 95). Las paredes llevaban relieves de los cuales han sido hallados algunos fragmentos. Los negros pilares cuadrados del peristilo proporcionaban un marco monumental para los servicios cotidianos en el patio interior, grande y orientado al cielo: una característica destinada a desempeñar un papel sobresaliente en lo sucesivo en la arquitectura ritual egipcia.

El ofertorio, destinado a la segunda función del templo funerario, estaba cuidadosamente aislado del patio destinado a la veneración. Esta era la parte más íntima del templo. La mesa de ofrendas y una o dos grandes estelas estaban directamente incorporadas a la pirámide, lo más cerca posible del lugar de la última morada del rey. Conservaban el mismo reducido tamaño que en las pirámides de Meidum y Dahshur.

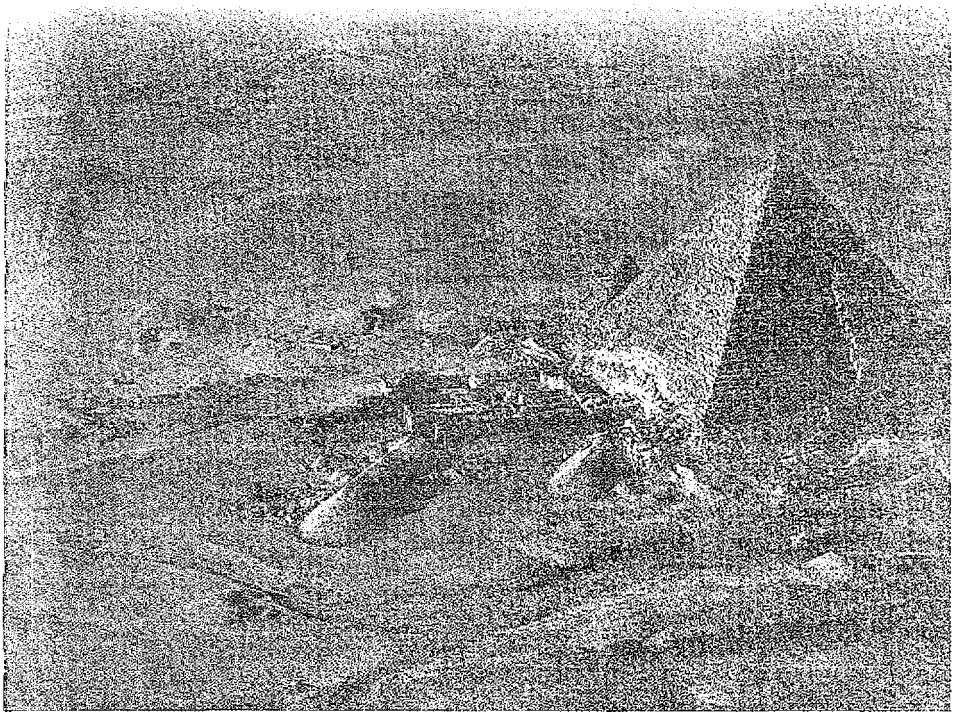
La doble finalidad del templo funerario como patio de veneración y ofertorio se aprecia muy bien en la edificación de Micerino, aun cuando ésta nunca fue totalmente completada debido a la agitada situación al comienzo del reinado y a su duración relativamente breve.

El plan original era construir el templo con piedra caliza local, pero, al final, los bloques de piedra caliza fueron utilizados solamente para los cimientos y el núcleo de algunas paredes. El resto era de ladrillo cubierto con cal. Ricke cristalizó el plano original de Micerino a partir de distintas variantes (1950, págs. 55-62). Reisner emprendió la excavación de todo el conjunto (1931).

202. Plataforma del templo funerario de Keops: Nada queda de este monumental edificio, el más antiguo de su clase que se conoce, excepto los restos de unas pocas columnas cuadradas, como la del primer plano.



203. Reconstrucción del templo funerario de Keops, adyacente a su pirámide. Dibujo de Ricke.



204. Vista aérea de la pirámide de Micerino mostrando la cara oriental con el templo mortuorio contiguo. Tomado de Reisner.

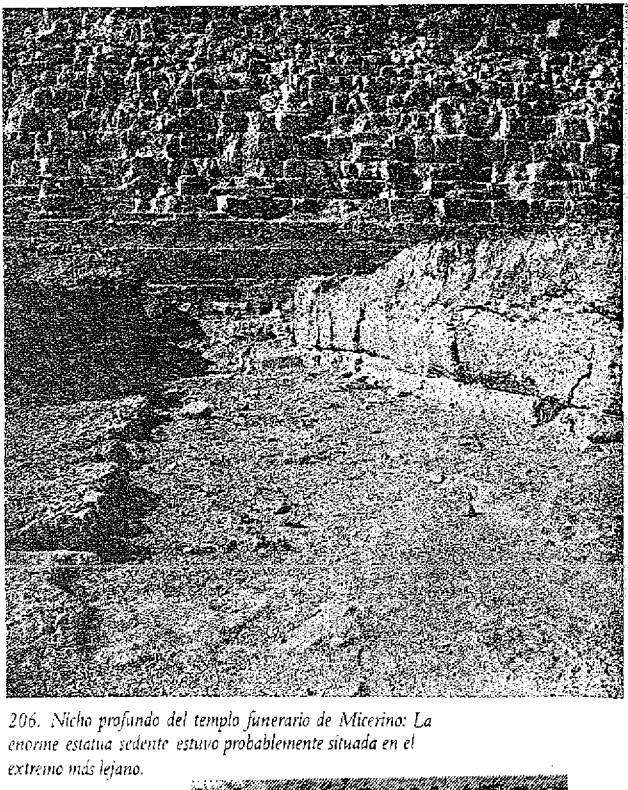
El lado del día

Desde la calzada ascendente se entra al templo funerario a través de un estrecho vestíbulo que conduce al gran patio del sol. La atmósfera mística del templo del valle, con su escasa iluminación y la larga oscuridad de la calzada, ha cambiado radicalmente. Todos los ritos para asegurar la vida futura del rey-dios han sido ya completados. El cosmos en todo su esplendor tiene de nuevo derecho de entrada. La arquitectura expresa este hecho de forma magistral.

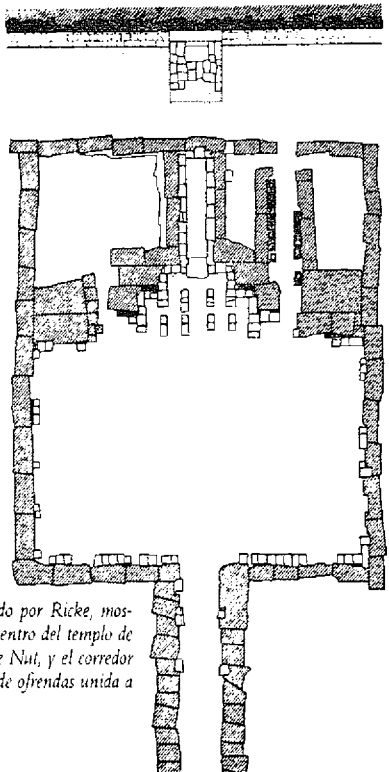
Un patio solar rodeado por pilares, tal como lo planeó Micerino, jamás había sido construido antes. Generalmente los pilares se hallaban sólo delante del profundo nicho en forma de pasillo en el lado opuesto del patio, formando, según Ricke, la Puerta de Nut, la cual separaba los cultos de Ra, en el lado del día, de los cultos de Osiris, en el lado de la noche.

Una colosal estatua sedente del rey Micerino, de alabastro (2,33 m de altura), estaba colocada, con toda probabilidad, en el extremo más alejado del profundo nicho. Recompuesta a partir de varios fragmentos grandes hallados por Reisner en la zona del templo, esta estatua destaca ahora sobre el resto de las esculturas

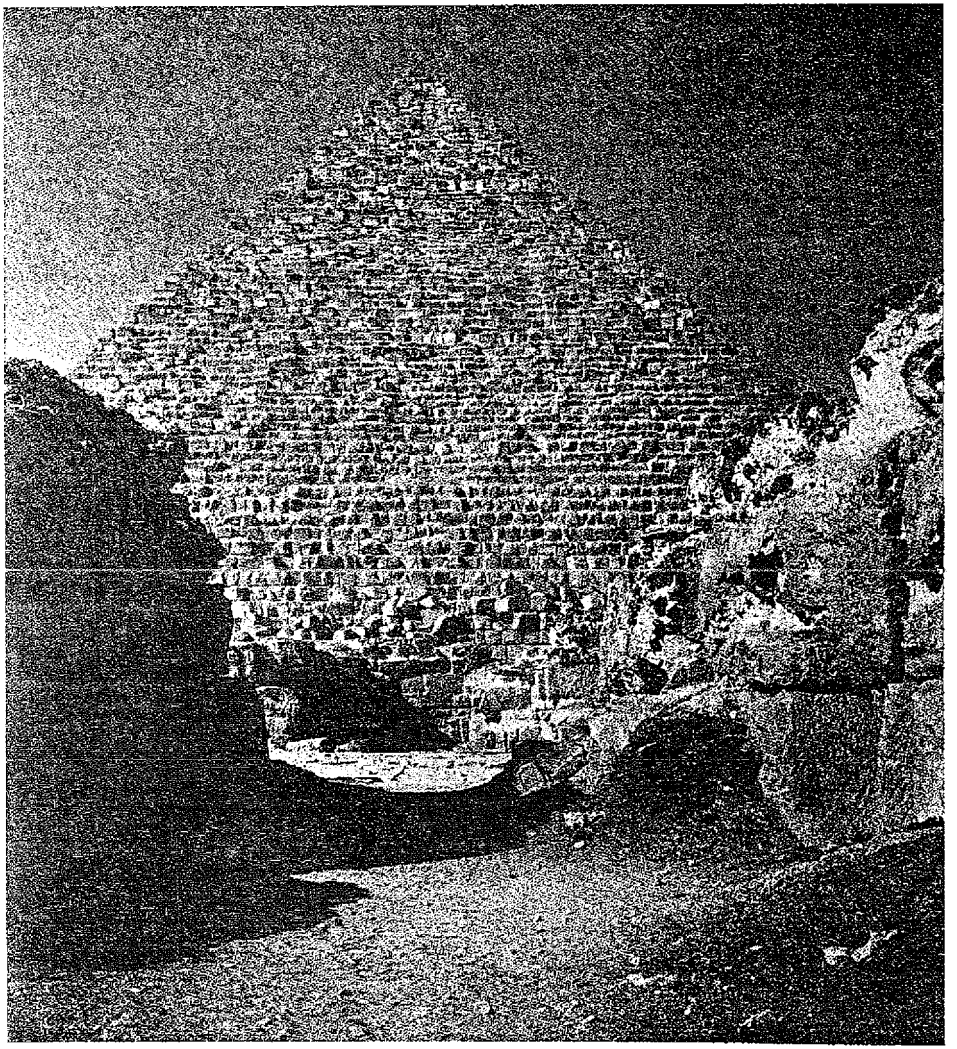
205. Estatua colosal de alabastro de Micerino: Esta estatua, de 234 cm de altura, fue hallada por G.A. Reisner cerca del templo funerario, rota en varios fragmentos.



206. Nicho profundo del templo funerario de Micerino: La enorme estatua sedente estuvo probablemente situada en el extremo más lejano.



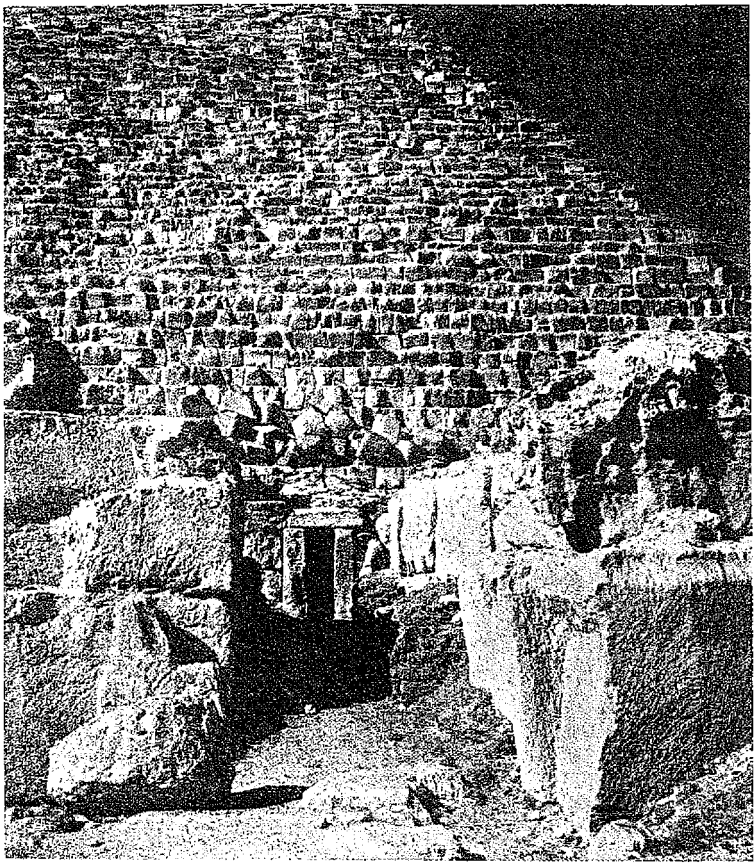
207. Plano del templo funerario de Micerino reconstruido por Ricke, mostrando el largo y estrecho vestíbulo; gran patio interior, el centro del templo de veneración; profundo nicho bajo los pilares de la Puerta de Nut, y el corredor separado y reservado que conducía directamente a la mesa de ofrendas unida a la pirámide. Tomado de Ricke.



208. Templo funerario en el lado oriental de la pirámide de Micerino. En primer plano las ruinas del largo vestíbulo cubierto, ahora bañado por la luz del sol.

egipcias en el Museo de Bellas Artes de Boston. El torso atlético del rey, poco usual, demuestra que éste ha recuperado en la muerte el pleno vigor de su vida terrena.

La anchura del patio solar se reducía por etapas para formar el corredor —la llamada Puerta de Nut— que terminaba en el profundo nicho. El patio era el espacio «público» donde se celebraban los servicios diarios por el rey difunto, y por esta razón el conjunto es a veces llamado templo de veneración *(Verehrungstempel)*. El deber de cuidar y restaurar el templo funerario recaía sobre los sacerdotes, con cargo a las donaciones dejadas para que continuaran perpetuamente los servicios diarios. En el caso de Micerino, el templo original fue completado solamente de manera un tanto tosca.



209. Corredor reservado que conduce a la mesa de ofrendas de Micerino: Las paredes estaban revestidas con bloques de granito negro.

El lado de la noche

Cerca del ángulo noroeste del patio solar, un estrecho corredor conduce hacia la pirámide. A derecha e izquierda estaba revestido con bloques de granito negro. A pesar de su situación ruinosa produce una inmediata impresión de respeto. Este corredor da a un estrecho espacio al pie de la pirámide, circundado por un muro: el recinto más sagrado, al cual no tenía acceso ninguna cámara de la llamada zona pública. En este recinto, directamente unido a la pirámide, se alzaba un altar de ofrendas con una o dos estelas, como en Meidum y Dahshur. En esta estación final delante de la pirámide prevalece de nuevo la máxima sencillez.

El complejo piramidal de la IV Dinastía no evolucionó posteriormente como

tipo de construcción. Los santuarios solares que aparecen en la V Dinastía no contienen nuevos elementos, ni en su situación al borde del desierto ni en su programa estructural. Su significado ritualista, sin embargo, ofrece un fenómeno interesante.

Los santuarios solares de la V Dinastía

Humanización de la deidad

Los santuarios solares constituyen una peculiaridad de la V Dinastía. Cada uno de sus seis primeros reyes erigió su propio santuario para Ra, el dios solar heliopolitano. Userkaf, con quien comienza la dinastía, edificó el primer santuario en Saqqara; con el sexto rey dejaron de utilizarse para siempre. Los santuarios representan en la evolución egipcia un breve interludio durante el cual la fusión de la naturaleza humana con la divina fue llevada hasta tal extremo que los santuarios se apropiaron elementos del conjunto piramidal real: la creación magistral para la transformación de un mortal en deidad. En el templo solar, sin embargo, era la deidad la que asumía la existencia humana. No se puede ir más lejos.

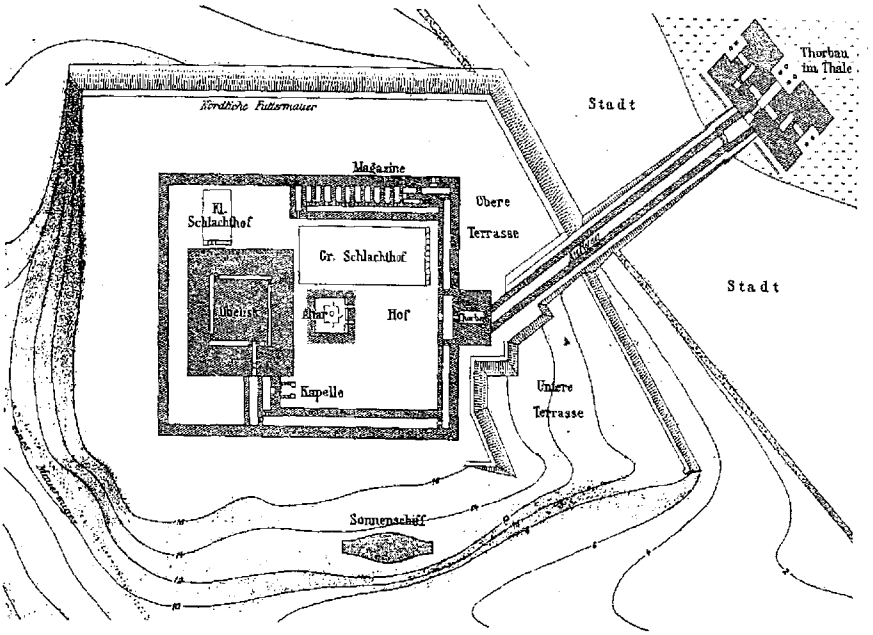
La causa estaba a la mano. Los templos solares de los seis reyes señalan la culminación del culto de Ra en la teología heliopolitana. Esto tuvo lugar en la V Dinastía cuando, como señala Gardiner, «el clero heliopolitano comenzó a ejercer una influencia sin precedentes» (1961, pág. 84). En la misma página añade: «La posición dominante del dios solar se refleja en un cambio que afectó a la titularidad real. Hasta entonces el nombre de Ra había aparecido solamente en los cartuchos de los reyes de la IV Dinastía». En la V Dinastía, el nombre del dios solar aparece como parte del primer nombre del rey: un cambio muy importante para Egipto.

La leyenda de que los primeros tres reyes eran los hijos trillizos de una sacerdotisa heliopolitana y del dios solar Ra se halla en un papiro de Berlín del último período. Hoy se cree que los reyes de la V Dinastía eran descendientes directos de Keops. Aun así, la leyenda contiene una profunda verdad: los santuarios solares eran exponentes del culto heliopolitano, y su desaparición hacia el final de la V Dinastía puede atribuirse al rápido crecimiento del culto de Osiris. Esto anuncia ya la llegada del Período Intermedio. La radiante confianza que formaba parte del culto del sol desapareció en medio de la congoja y la ansiedad que rodean tanto al Estado como al individuo durante esa agitada época.

En las paredes de los corredores y en la cámara mortuoria del último rey de la V Dinastía, Unas, halló Maspero en 1881 los primeros Textos de las Pirámides inscritos. En ellos se manifiesta fuertemente el poder de Osiris, siempre en aumento. Esta evolución desde el punto culminante del culto solar hasta el refugio en el dios de la muerte, que ostentaba los poderes de decisión final en cuanto a la vida futura, abarcó poco más de dos siglos.

El santuario solar de Niuserre

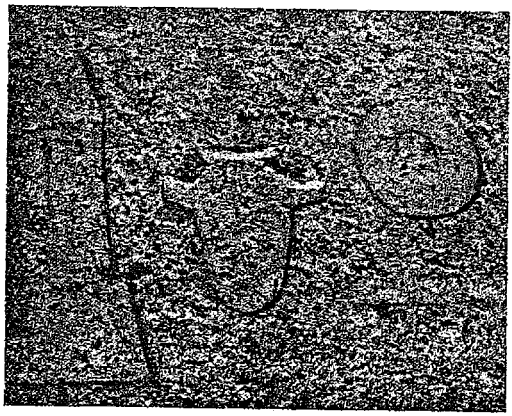
De los seis santuarios solares conocidos de la V Dinastía, solamente uno —el complejo de Niuserre en Abu Gurob— permite una visión completa de su enigmático trazado. Borchardt lo excavó y lo estudió en 1898-1901 (1905). A partir de él podemos obtener alguna idea de la estructura interna de la fusión de la deidad con el ser humano en la V Dinastía. El santuario se extiende sobre una terraza de arena allanada a unos veinte minutos de camino de la pirámide y del maravilloso templo de la pirámide de Niuserre, su constructor (1907, pág. 5). La crecida del Nilo alcanza el pórtico del valle que anuncia el comienzo del santuario. Este pabellón recuerda en muchos aspectos el templo del valle de Kefrén: paredes inclinadas, puertas separadas para el Alto y el Bajo Egipto, y una disposición simétrica de los corredores interiores, aunque, claro está, no existe ninguna sala para los ritos fúnebres del rey. Hay también una calzada ascendente cubierta que conduce desde el templo del valle hasta una zona principal construida sobre un podio artificialmente elevado y aplanado. El elemento principal de esta zona era el gran patio solar en el cual los sacerdotes celebraban diariamente los ritos por el rey. El acceso a este santuario solar se efectuaba a través de un pórtico de entrada.



210. Plano de situación del santuario solar de Niuserre: El santuario del dios solar Ra sigue la organización del complejo piramidal de la IV Dinastía —templo del valle o pórtico, calzada cubierta y templo con amplio patio (aquí 100 × 83 m) para los sacrificios al dios solar— delante de un sólido obelisco en lugar de una pirámide. Gran barca solar fuera del recinto. V Dinastía. Tomada de Borchardt.

211. Ruinas del obelisco del santuario solar de Niuserre en Abu Gurob: Al fondo a la derecha puede verse el final de la calzada.

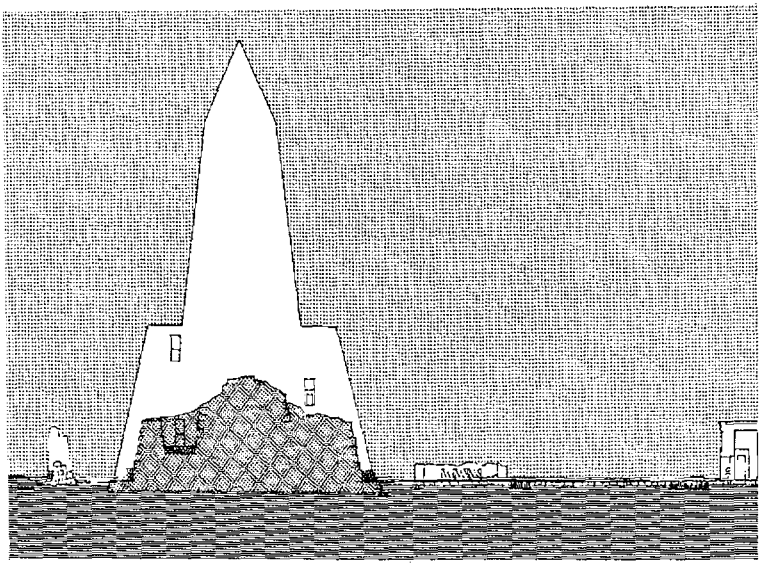
212. Relieves rehundidos de obelisco: Procedentes de la capilla de Ti, Saqqara. Pintados de verde en un bloque de granito, en el patio solar.



Todos los detalles apuntan a la finalidad principal: un lugar de sacrificio, un gran patio para el sacrificio de animales, con canales abiertos en el enlosado para desaguar la sangre, como en los templos del Perú. Diez (hoy nueve) pilas de alabastro estaban colocadas en fila a la derecha de la entrada, estando sus bordes rodeados de pequeños huecos en forma de copa como los que se hallaron más tarde alrededor de los altares de la fertilidad de la Creta minoica. «Su sección interior tiene la forma de las hermosas vasijas de brillante cerámica roja conocidas desde el Imperio Antiguo» (1905, pág. 48). Tal vez fueran pilas para recibir la sangre del cuello cortado, como creyó Borchardt. El lugar era como un magnífico matadero, completado con un enorme altar de alabastro inmediatamente delante del obelisco solar. En el centro del altar, un plato circular, reminiscencia de la forma original de un plato para comer, estaba rodeado de cuatro puntos para las ofrendas, cada uno en forma de jeroglífico de un *hetep* , esto es, de un tapete con un pan circular encima. Estas cuatro mesas para ofrendas estaban orientadas hacia los puntos cardinales. La mesa para ofrendas situada entre las dos estelas en la pirámide de Snefru, en Meidum, tenía una forma similar a éstas, y en muchas mastabas se han hallado platos de ofrendas en formas de *hetep*.

Altares solares de reducido tamaño, accesibles mediante pequeños escalones, aparecen también en el Imperio Nuevo, tales como el altar de la terraza superior dedicado a Amón-Ra en el templo de Hatsepsut y el que se halla en la sala de ceremonias de Tutmosis III en Karnak, pero ninguno tenía una posición tan prominente ni una monumentalidad tan escultórica.

El patio solar de este santuario (102 × 78 metros aproximadamente), el cual



213. Reconstrucción del obelisco de Niuserre. Dibujo según original de Borchardt.

manifiesta todos los signos de la orientación cósmica, hasta la unión mágica a través de la sangre, concentra el significado del patio interior egipcio sin el suplemento de un pórtico circundante. Todo está orientado hacia el círculo eterno bajo la protección del obelisco, símbolo de los rayos solares. Se penetraba en esta zona desde un oscuro corredor que conducía desde el pórtico de entrada al interior de la pirámide truncada. No había, por supuesto, ningún cadáver que proteger. Un sinuoso corredor conducía hasta la terraza abierta desde la cual el pesado obelisco (construido con bloques de piedra) se elevaba hasta unos treinta metros de altura. El patio, el altar y el obelisco estaban bañados de luz.

En el sur hay cimientos de ladrillo sobre los cuales se situaba en tiempos una barca solar del mismo tamaño que la de madera, maravillosamente conservada, hallada en el lado sur de la pirámide de Keops.

Sobre el significado de los santuarios solares

¿Son los santuarios solares exclusivamente lugares de culto, lugares de veneración del dios solar? Todo indica que sí. Su acento principal era el alto símbolo de Ra: el obelisco erigido sobre la pirámide truncada y el lugar de sacrificio.

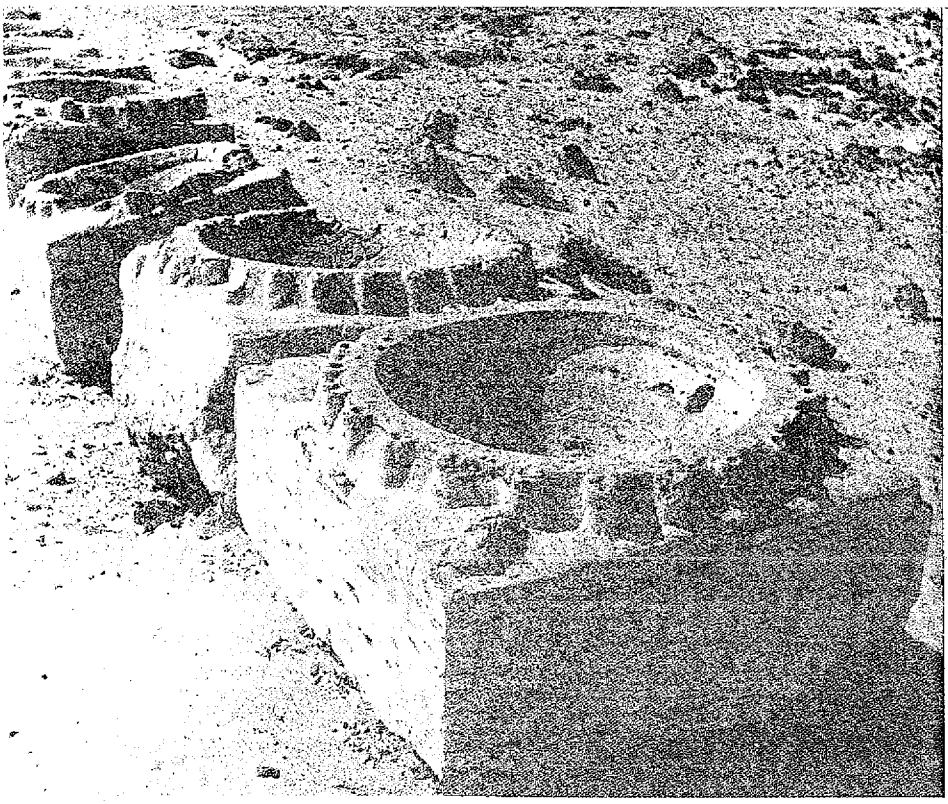
Los primeros santuarios solares tenían simplemente una pirámide truncada, semejante a las antiguas mastabas y de forma similar a la tumba de Sepseskaf, último rey de la IV Dinastía. Durante tres temporadas, de 1955 a 1957, H. Stock y Ricke buscaron el templo solar de Userkaf. Poco había quedado de él si se exceptúan unos cuantos detalles reveladores, tales como un «exiguo altar de ladrillos de barro del Nilo» (Stock, 1959, pág. 11).

Fue Neferirkare, tercer rey de la V Dinastía y constructor de su pirámide más alta, el primero que colocó un obelisco sobre la pirámide truncada como forma arquitectónica dominante. Ambas formas —pirámide truncada y obelisco— pueden remontarse a símbolos de Atón-Ra en los templos de Heliópolis. La pirámide truncada, junto con la situación del templo solar en una colina, fue concebida como una abstracción del símbolo de las «altas arenas» de Heliópolis y el obelisco como una abstracción de la piedra *benben*, la primera manifestación de Atón-Ra desde el caos primigenio (Kaiser, 1956, pág. 111).

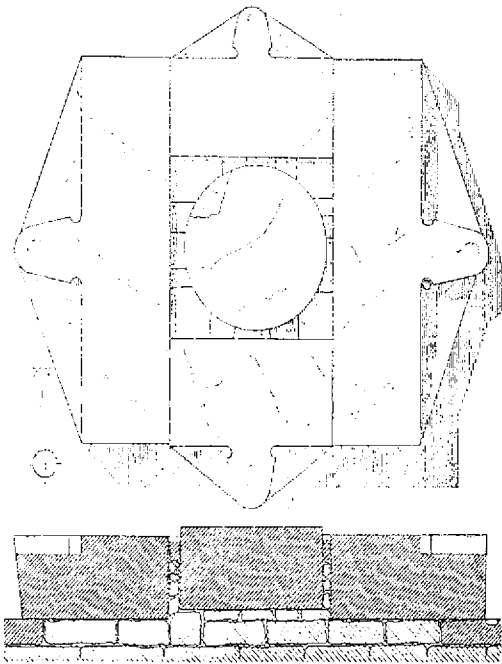
Cabe preguntarse, sin embargo, si los santuarios solares estaban destinados solamente al dios Ra. A juzgar por la costumbre egipcia, es más que probable que tuvieran más de una finalidad.

Cada uno de los seis reyes edificó su propio santuario. ¿Qué significa esto? ¿No es el proyecto entero (como se ha sugerido) un «doble», un segundo lugar de veneración? «En otras palabras, ¿mantendría el rey, además de su tumba como soberano terreno, un lugar personal de culto a él mismo después de que la muerte le hubiera reunido con su padre Ra?» (Winter, 1957, pág. 233).

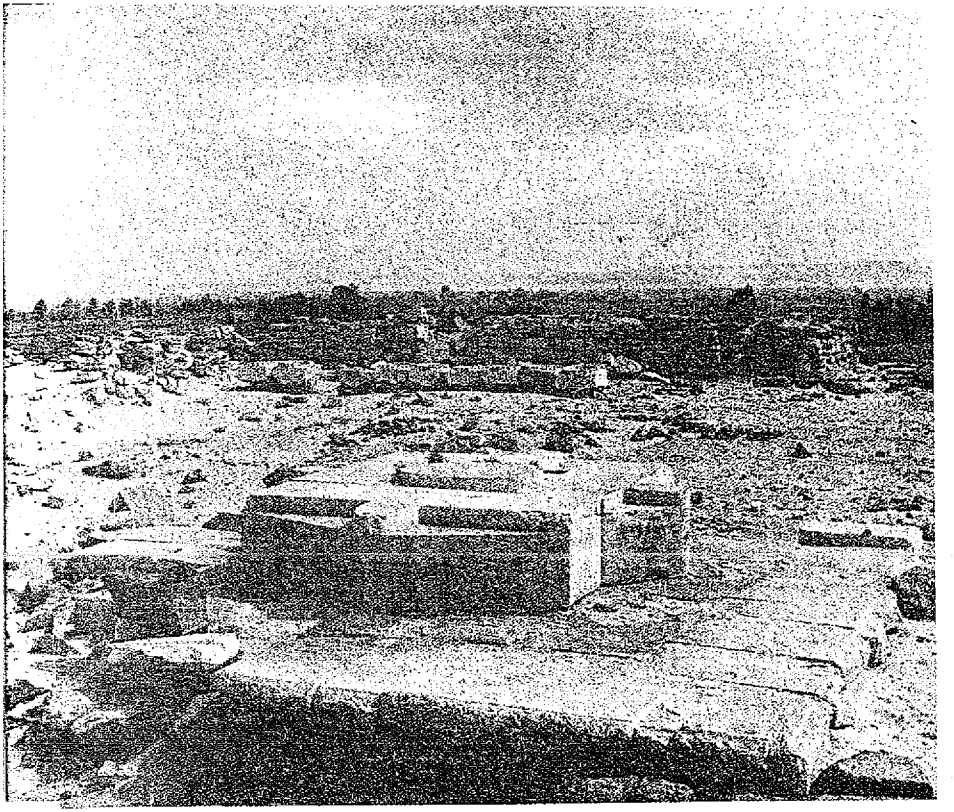
El significado de los santuarios solares de la V Dinastía puede estar relacionado con el culto funerario real (Kaiser, 1956, pág. 114). Hay que recordar los cenotafios de la I Dinastía, la falsa tumba y la tumba auténtica que erigieron los primeros reyes, una en el Alto y otra en el Bajo Egipto, como una doble garantía para su existencia posterior. En la V Dinastía, cuando el culto del rey como hijo



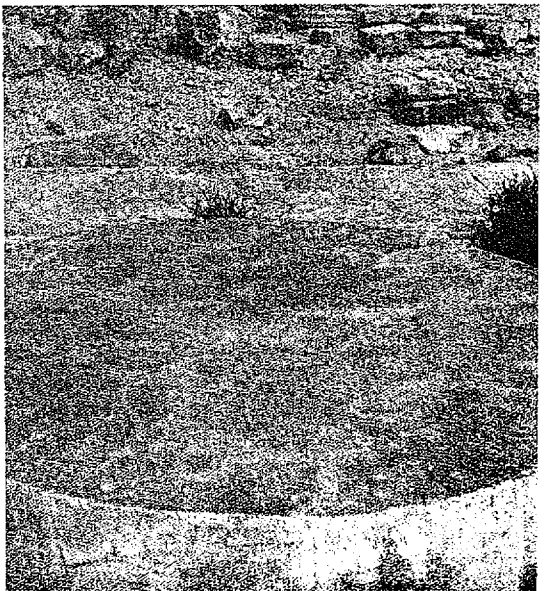
214. Pilas redondas de alabastro dentro del patio solar, inmediatamente a la derecha de la entrada desde la calzada. Estaban destinadas a contener la sangre de los animales sacrificados.



215. Plano de altar de sacrificios del patio solar. Un hetep *(forma de pan) en cada uno de sus cuatro lados. Mesa de ofrendas circular en el centro. Tomado de Borchardt.*



216. Altar de sacrificios en el patio solar, enfrente del obelisco.



217. Mesa de ofrendas circular: Situada dentro del altar de sacrificios. La sangre de los animales sacrificados era probablemente conducida en canales a través del patio hasta las pilas de alabastro.

del dios y el culto de Ra se habían elevado a tal preminencia que fue posible volver a adoptar la apariencia externa del conjunto piramidal, puede comprenderse la fusión de los ritos de veneración del rey difunto con los del dios-solar.

Sobre el significado de las pirámides

El significado de las pirámides ha preocupado siempre a los egiptólogos y no solamente a éstos: astrónomos y astrólogos, arquitectos e ingenieros, teólogos y místicos, matemáticos y visionarios románticos han sugerido continuamente nuevas interpretaciones de la naturaleza y el significado interno de la gran pirámide.

Nada más lejos de mi intención que tomar parte en las controversias interpretativas a que ha dado origen la sencilla y enigmática forma de la pirámide. Muchas han sido relacionadas por Lauer (1948, págs. 110-160). Pero deseo señalar que las teorías de los egiptólogos cristalizan alrededor de dos puntos de vista continuamente recurrentes y opuestos, uno materialista y otro simbólico.

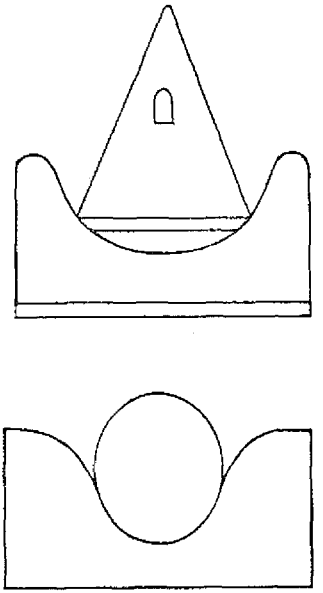
El concepto materialista explica la configuración de la pirámide como el resultado de avances técnicos, como la culminación de numerosos tanteos (Speleers, 1935-1938, pág. 603). Esta es básicamente la opinión de Petrie, como declara en su descripción de la pirámide de Meidum: «El sistema por el cual se realizó mantiene una evidente analogía con la construcción de las grandes tumbas en forma de mastaba en el cementerio de Meidum... Estas 'mastabas' o 'bancos', anchos y planos, eran ampliados durante la vida del propietario revistiéndolos con una o dos gruesas capas de ladrillos... Tal sistema coincide completamente con el que vemos en la pirámide de Meidum» (1892, pág. 5).

Borchardt, a quien debemos muchos esmerados estudios sobre la arquitectura egipcia, también cree que la forma de la pirámide es el resultado de los esfuerzos de varias generaciones de arquitectos, después de muchos rodeos y finalmente «tal vez por azar» (1928, pág. 40). Su investigación se basa en los procedimientos de construcción.

El planteamiento simbólico de Ernesto Schiaparelli en 1884

El ritual simbólico engendra la construcción técnica, y no al contrario. El mundo de los egipcios era similar al mundo de la prehistoria: lleno de símbolos en los cuales la realidad y el más allá, lo sagrado y lo profano, estaban inextricablemente entrelazados. Era el mundo del presente eterno: la continuación sin fin de la existencia. La muerte era solamente un puente que conducía de una vida real a otra, y de aquí su tremenda importancia. Probablemente ningún otro pueblo como el egipcio ha hecho tanto de esta transición el centro de su pensamiento. Así, nadie como los egipcios le ha dado jamás una expresión arquitectónica tan intensa.

La relación entre la pirámide y su significado simbólico solamente se puede comprender en un sentido amplio. La pirámide no puede ser considerada aisladamente, ni como tumba ni como estructura formal. Está relacionada con los avances del culto solar, en el cual se funden el dios, el rey y el *ka*. Al mismo tiempo, incorpora también conceptos milenarios.



218. Relación entre el sol y la pirámide según Schiaparelli: Este autor compara el disco solar entre dos montañas («el sol en su horizonte») con una pirámide situada en el lugar del sol.

Los investigadores estuvieron seguros de esto desde el principio, pero Schiaparelli fue el primero que situó sobre una base de sólida erudición su investigación del significado simbólico de las pirámides. Dotado de la visión universal de un gran erudito, se aventuró a entrar en este problema en 1884, cuando los Textos de las Pirámides acababan de ser descubiertos por Maspero y todavía permanecían sin transcribir en las paredes de la tumba del rey Unas. Como J. J. Bachofen, Schiaparelli recurrió a modestas transcripciones funerarias para hallar la clave del significado de las pirámides. A partir de pequeños amuletos en forma de pirámide, que eran colocados junto a los muertos, identificó la relación de la pirámide con el sol. En un amuleto vio «una pirámide que surgía entre dos montañas» (pág. 126), lo cual parecía el jeroglífico de «el sol en su horizonte».

Como si se defendiera contra las explicaciones materialistas posteriores, Schiaparelli recalca que «la idea generadora del obelisco no era una combinación casual de líneas geométricas sino que representaba un haz de rayos solares que irradia desde la pequeña pirámide [el piramidión] que constituye su extremo superior y que desciende verticalmente para dar calor y fertilidad a la tierra» (págs. 127-128), y recuerda los ocho monos cinocéfalos (con cabeza de perro) que

adoran al sol al pie del obelisco de Luxor (uno de los cuales se encuentra actualmente en el Louvre).

El obelisco de mampostería, tal como apareció por primera vez en tamaño monumental en el santuario solar de Niuserre, no había sido conocido antes. Su forma, abstracción del betilo benben heliopolitano, se derivaba de la forma de la pirámide de la IV Dinastía y fue mantenida desde entonces sin modificación.

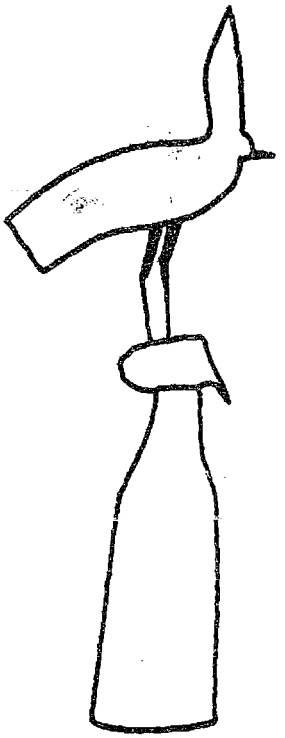
A partir de las inscripciones, Schiaparelli demostró «la simultaneidad del culto del alma del faraón difunto enterrado en la pirámide y el culto del sol representado por el dios Ra y otras divinidades de carácter esencialmente solar, sobre todo la diosa Hator» (pág. 132), a la que se conocía simultáneamente como «Hija de Ra» y «Madre de Ra»: procreadora de sí misma, partenogenética, símbolo antiguo y siempre recurrente de la vida y del sol que se renueva a sí mismo. Schiaparelli alude a una teoría corriente que no considera la pirámide como expresión exclusiva del elemento masculino espiritualmente creador. En la religión heliopolitana, el principio masculino —Atón-Ra— era lo supremo del cual emanaban las demás fuerzas divinas (Thausing, 1948, pág. 124). El principio femenino «es lo que se separa de lo supremo» *(ibid.)*, pero estaba también incluido en la parte ctónica de la pirámide como matriz materna de la tierra. Esto tuvo expresión más tarde en las tapas de los sarcófagos, donde las diosas-madres Nut, Isis y Neftis aparecen dando vida y protección al difunto.

El punto de partida de Schiaparelli, a grandes rasgos, era este: las pirámides eran consideradas no como tumbas aisladas sino como un marco simbólico de relaciones que las unía como «objetos de culto» *(oggetti di culto;* pág. 132) con la montaña primigenia, el benben monolítico del templo de Heliópolis y los obeliscos situados delante de los grandes templos del Imperio Nuevo. Esta idea del significado plural de la pirámide se ha ampliado desde entonces, pero el planteamiento de Schiaparelli es todavía fundamentalmente válido.

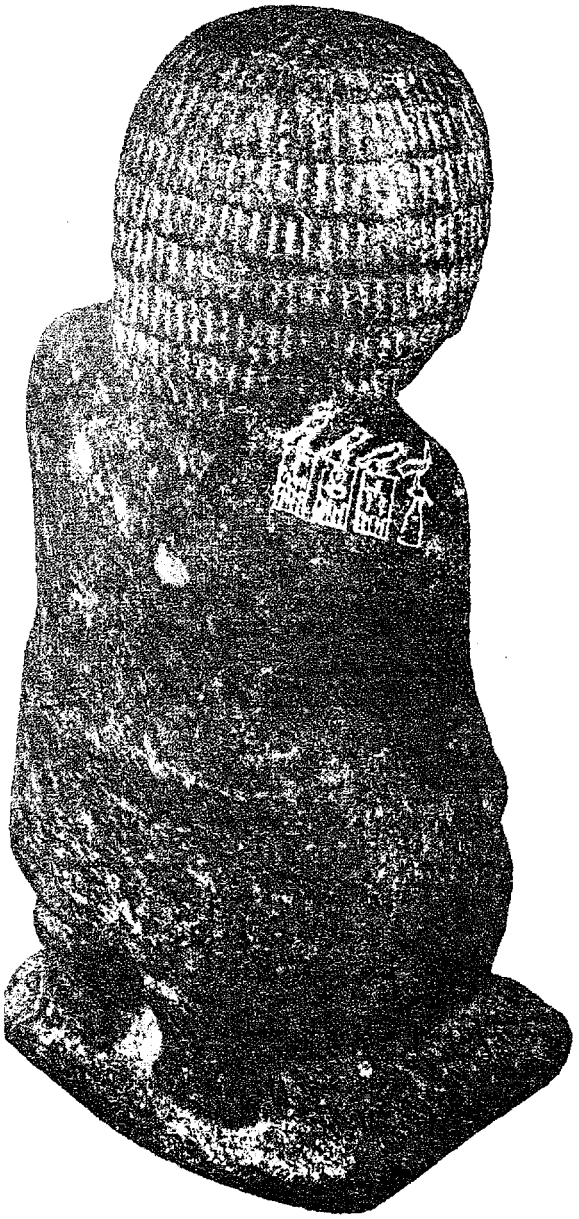
Alexandre Moret: benben, pirámide y obelisco

Cincuenta años después, Moret iluminó más la todavía oscura representación de la piedra sagrada benben de Heliópolis, al mostrar cómo estaba representada en las primeras dinastías. Moret se refería a una arcaica estatua de granito de finales de la II Dinastía. En el hombro derecho de esta figura arrodillada están grabados los nombres de tres reyes, cada cual en su *serekh* —un rectángulo que comúnmente contenía el nombre de Horus del rey— coronado por el halcón Horus. Están precedidos por «un ave con cresta que no es un halcón sino probablemente el fénix Benou, quien sujeta con sus garras el extremo cónico de un betilo de forma vagamente piramidal [cónica]. Yo no dudo de que este es el Benou que luce sobre el ben, como se dice en el Texto de la Pirámide [Elocución 600]» (1935-1938 pág. 624).

El benben era originalmente un menhir, como muchos de la zona mediterránea y de otras regiones. En la teología heliopolitana se convierte en la montaña primigenia, la cual fue sacada del caos por Atón, dios antropomorfo. Moret vio la relación entre el ben y los monolitos del período neolítico (págs. 623-624). Refi-



219. Benou y benben: El pájaro con cresta en el hombro de un hombre arrodillado (fig. 220) probablemente representa al Fénix Benou, y la piedra sobre la que se posa el canto rodado que surgió en primer lugar del caos, el benben.



220. Estatua de rodillas, de granito: Tres nombres reales están grabados en el hombro derecho, y también un pájaro posado en una piedra cónica. II Dinastía.

riéndose al nombre benben, declara que «la duplicación de una raíz significa repetición o intensidad» (pág. 626). Nosotros no podemos ya estar de acuerdo con las opiniones que él desarrolló a partir de esto, aunque la premisa básica todavía sigue siendo válida. La opinión actual es más bien que «incluso el nombre de la piedra es característico: benben, puesto que contiene la raíz *bn, wbn*, la cual se relaciona con la idea de reluciente, brillante, ascendente» (Thausing, 1948, pág. 122).

El obelisco de mampostería que apareció en la V Dinastía es efectivamente «la evolución final del betilo en su forma regularizada y en su papel de imagen del sol» (Moret, 1935-1938, pág. 625). Esto es lo que Plinio el Viejo quiso decir cuando declaró, en un pasaje frecuentemente citado, que los obeliscos eran rayos de sol petrificados.

El obelisco «perfecto», tal como fue erigido en el Imperio Medio, es «una aguja de piedra de planta cuadrada, que termina en un piramidión puntiagudo, con cuatro caras, cada una de las cuales es un triángulo isósceles» *(ibíd.)*.

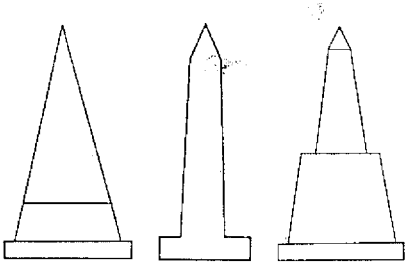
El simbolismo del triángulo isósceles

Desde la época de Schiaparelli ha quedado confirmado que la *Gestalt* de la pirámide como la del obelisco no surgieron de una combinación casual de líneas geométricas ni de un mejor conocimiento de las técnicas de la construcción en piedra, sino que «la pirámide en Egipto era un símbolo del sol radiante» (Schiaparelli, 1884, pág. 144). También sabemos que la característica forma triangular de sus elementos constituyentes estaba relacionada con cambios en el ritual, cambios que tuvieron lugar en la IV Dinastía y tal vez muy al final de la III, con la instauración del todopoderoso culto solar.

Se coincide generalmente en que la forma de la pirámide escalonada va unida a la idea de ascenso. «Una escalera hasta el cielo será alzada para él [el rey], por la que podrá ascender al cielo» dice la Elocución 267 de los Textos de las Pirámides (trad. Mercer, 1952, I, pág. 89). Esto no es muy diferente de la versión sumeria del zigurat como intermediario hacia el cielo, pero en Sumer se creía que los dioses tenían su morada en la cima del templo. La idea de la escalera se combinaba con la idea de una montaña elevándose hacia lo alto. El zigurat —la montaña recientemente levantada— era considerado como el centro del mundo dondequiera que estuviera.

Cuando la pirámide escalonada fue sustituida por la pirámide de forma regular, la figura de un triángulo isósceles con dos líneas horizontales representando las paredes del recinto se convirtió en el jeroglífico de la pirámide *(mer)*. Esto sugiere, de paso, cuán tarde fueron introducidos ciertos jeroglíficos.

El significado de la pirámide es indudablemente múltiple. No se puede reducir a la sola idea de una tumba, una escalera hasta el cielo, un cono de luz o el símbolo terreno del dios solar. La pirámide es todo esto y también mucho más. Su significado omnicomprensivo descansa en la idea del eterno vagar representado en el antiguo recinto de la pirámide de Zoser y que todavía recibió una expresión más cósmica en los conjuntos piramidales de la IV Dinastía y en los grandes templos del Imperio Nuevo.



221. Jeroglíficos de pirámide con los muros del recinto (IV Dinastía) y el obelisco (V Dinastía).

Finalmente nos acercamos, muy provisionalmente, al significado del elemento constitutivo más importante de la pirámide, el triángulo isósceles. ¿De dónde procede? ¿Cómo hay que entenderlo? Se trata de un antiquísimo símbolo usado en la prehistoria; cuando apuntaba hacia abajo representaba la vulva como símbolo de fertilidad, como hemos mostrado repetidas veces en *Los comienzos del arte.*

En esta forma aparece frecuentemente durante el cuarto milenio en Mesopotamia y Egipto, profundamente grabado en pequeñas figurillas femeninas —símbolos de fertilidad llamados diosas-madres.

El triángulo isósceles fue transformado durante los comienzos del período sumerio en un triángulo abstracto aislado. El rostro enmascarado de Hassuna (Mesopotamia) —un fragmento de la cerámica más antigua— muestra visiblemente cómo el espacio sobrante está lleno de triángulos negros con las puntas dirigidas hacia abajo. Los triángulos pintados, rayados o sombreados, dispuestos en filas, se hallan muy extendidos en la zona de la cultura de la vasija pintada en países asiáticos y en Egipto (Baungärtel, 1955, pág. 56).

Una vasija perfectamente conservada procedente del Cementerio A de Kish (Mesopotamia) tiene el asa en forma de figura femenina. El significado del triángulo, justamente debajo del asa de esta vasija funeraria, se hace incluso más evidente, ya que sus dimensiones son enormes en comparación con la figura femenina, plana y toscamente sugerida, que constituye el asa.

Los triángulos apuntando hacia arriba fueron también frecuentemente utilizados en el primer período sumerio, por ejemplo en un incensario procedente de Tepe Gaura.

En Egipto, los vasos en forma de tulipán del período tasiano —la cerámica más antigua de Egipto— tienen dos filas de triángulos cuasi isósceles con rayado en espiga; una fila apunta hacia arriba y otra hacia abajo, separadas por franjas horizontales.

El triángulo isósceles que está dirigido hacia arriba no puede ser identificado simplemente como símbolo masculino de la fertilidad. Su significado plural puede incorporar las Montañas del Oeste y del Este, como muestra un plato amratiense, donde aparecen rodeadas por el océano primigenio y el océano del cielo. El triángulo que apunta hacia arriba ha sido también relacionado con una llama elevándose y el triángulo que apunta hacia abajo con agua que fluye constantemente hacia el punto más profundo, lo cual nuevamente abarca aspectos de la fertilidad masculina y femenina (Schwabe, 1951, pág. 154).

El jeroglífico del piramidión —símbolo del sol y morada de los dioses— es un triángulo negro.

En cuanto a la dirección del triángulo, puede haberse producido un cambio desde un período ctónico, en que prevaleció el símbolo de fertilidad femenino, hasta el predominio de una jerarquía masculina que halló su expresión artística más completa en las pirámides de la IV Dinastía.

El simbolismo del cuadrado

La pirámide es un volumen. Sus cuatro planos triangulares son sus elementos constitutivos. Su forma externa surge del proceso de abstracción experimentado por la piedra sagrada benben. El desarrollo de este proceso es típico de la simbolización que estaba por debajo de todo.

En las primeras civilizaciones arcaicas, los números tenían no solamente propiedades cuantitativas, sino también propiedades cualitativas, a menudo cósmicas y divinas. Cada uno de los números del uno al diez poseyó un significado particular en las diferentes culturas: en el sistema sexagesimal de los sumerios, en el sistema decimal de los babilonios, y los números siete y nueve para los griegos.

Sethe dice que se puede considerar el número cuatro «como el número sagrado, por decirlo así, de los egipcios... La posición predominante de este número está basada en nuestra idea del espacio exterior, las cuatro direcciones del cielo (las esquinas del mundo, los soportes del cielo...), los cuatro vientos... Las cuatro caras de ciertos dioses y demonios (Textos de las Pirámides, § 1207b) o los cuatro cuernos que se suponía poseían ciertos animales demoníacos, uno por cada dirección del cielo (§ 470a), están todos directamente relacionados con esta idea» (1916, pág. 31).

Kees, que amplió la teoría de Sethe, piensa que una de las razones del carácter sagrado del número cuatro era la configuración natural de Egipto; que venía de «la división del país en 'Alto' (sur), 'Bajo' (norte), 'Derecho' (oeste) e 'Izquierdo' (este), determinada por el curso del río como eje central... A partir de esta reciprocidad complementaria, los egipcios derivaron los cuatro cuartos del mundo. De acuerdo con las cuatro direcciones del cielo, para ellos éste se apoyaba en cuatro pilares» (1941, págs. 167-168). Otros ejemplos son los cuádruples vasos canopes para los intestinos, el hecho de que toda purificación y consagración hubiera de repetirse cuatro veces, y muchos más.

Que sepamos, el cuadrado era la expresión plástica más completa del número sagrado. Inalterablemente el cuadrado constituyó la base desde la cual surgió toda pirámide verdadera. La interacción entre pirámide y cosmos se hace indudablemente clara por la gran precisión con la cual cada uno está orientada hacia los cuatro puntos cardinales.

Novena parte:
Los grandes templos y el viaje eterno

Rara vez en la historia de la arquitectura las etapas preliminares de las construcciones monumentales han sido tan confusas como en los templos del Imperio Nuevo.

Lo que ha quedado de los edificios sagrados del Imperio Antiguo no proporciona una clave fiable de los monumentos desaparecidos. Los templos de la IV Dinastía, tales como el templo del valle de Kefrén en Gizeh, que es el que mejor se conserva, no son santuarios en el sentido estricto de la palabra, sino una parte del complejo culto de los muertos, y están directamente relacionados con las pirámides. Lo mismo puede decirse de los templos solares de la V Dinastía, situados al borde de la meseta del desierto dentro de la zona de las necrópolis, como por ejemplo el santuario solar de Niuserre en Abu Gurob al sur de Gizeh.

Tampoco pueden hallarse etapas preliminares por lo que se refiere a los edificios del Imperio Medio, ni pueden sacarse conclusiones del pequeño santuario de la época de Amenemes III en Medinet el-Maadi, en la frontera de Fayum en el norte, o del delicioso pabellón del Heb-Sed de Sesostris I en Karnak, en el sur. Tal vez los verdaderos precursores de los grandes templos permanecen todavía enterrados en el barro del Nilo o debajo de los campos cultivados.

No es mi intención volver a relatar la historia de los grandes templos, sino solamente plantear una cuestión: ¿Cuál es el significado de estas estructuras monumentales, las más grandes del mundo arcaico en lo que se refiere a su tamaño y al esfuerzo que requirieron?

Los colosales templos del Imperio Nuevo no tienen precedentes. Sus dimensiones ciclópeas nunca se habían dado antes y sólo raramente se dieron después. Dichos templos son manifestaciones de un imperio mundial que dominaba el arte de hacer visible su poder. El templo de Amón en Karnak fue llamado oficialmente el «Trono del mundo» y sus proporciones estaban de acuerdo con su nombre. Los recintos estaban rodeados por un tosca pared de ladrillos de 2.300 metros de longitud aproximadamente y 7,5 metros de espesor. Parte de esta pared está todavía en pie, y el arquitecto y arqueólogo C. Robinchon pudo establecer su estudio sobre ella.

El edificio más espectacular es la sala hipóstila del templo de Amón, con sus 134 columnas. Data de la época de los primeros ramésidas. Si tomamos un modesto templo edificado durante el reinado de Sesostris I (1971-1929 a. C.) como el comienzo de la actividad constructora relacionada con el templo de Amón, y el inacabado Pilono I como el final, el total abarca alrededor de mil ochocientos años.

(Es verdad que el Pilono I es mencionado en una inscripción de Sesonq I, pero generalmente hoy se está de acuerdo en que fue erigido bajo los tolomeos [Hölscher, 1943, págs. 139-149]. Dicho pilono nunca fue acabado y faltan en él las inscripciones y relieves que cubren las otras superficies parietales.)

Durante las Dinastías XVIII y XIX, los nombres de varios grandes faraones aparecen asociados a Karnak: Hatsepsut, Tutmosis III, Amenofis III y Ramsés II. El impresionante antepatio de la sala hipóstila ramésida no fue añadido hasta después de 950 a. C. por Sesonq I (925-915 a. C.), fundador de la dinastía libia (XXII), la cual estableció su capital en Bubastis, en el delta del Nilo, a unos sesenta y cinco kilómetros al nordeste de El Cairo. Este antepatio, de 103 × 85 metros

aproximadamente, es el mayor de los construidos durante las primeras civilizaciones arcaicas.

La idea del templo

A través del largo período del Imperio Nuevo, la idea básica del templo como tripartito permaneció inalterada. La morada efectiva del dios, el santuario más íntimo, era de reducido tamaño, y su entrada estaba sellada. En el templo de Amón, el sello era roto por el faraón en persona, con ocasión de las procesiones. Una antecámara albergaba la barca sagrada en la cual, dentro de una naos, la imagen del dios era transportada durante las procesiones. En algunos templos —Luxor, por ejemplo— el acceso al santuario y a sus capillas adyacentes se hacía por columnatas abiertas, pero en el tipo más habitual el acceso tenía lugar a través de una sala de columnas techada: la sala hipóstila. Un patio cercado, generalmente rodeado en tres lados por columnas, con el alto pilono en el muro más alejado, separaba el templo del mundo exterior.

Este esquema arquitectónico, que reaparece con muchas variaciones en sus detalles, difiere tan ampliamente de las catedrales cristianas posteriores como los dos sistemas religiosos que uno y otras representan. El plano de los grandes templos corresponde exactamente a las creencias egipcias más profundas. Los egipcios, que permanecieron fieles a su antiguo credo durante miles de años, no reconocían ninguna interrupción en la vida ni en la muerte. Su concepto del mundo estaba basado en la alternancia de la constancia y el cambio. Los días, las estaciones, la siembra, la siega, todo giraba en perpetuo movimiento con los cuerpos celestes y estaba íntimamente relacionado con ellos.

Era esta eterna progresión y eterna repetición, la sublimación de un eterno vagar, lo que tomaba forma en el cuerpo del templo. Los egipcios veían un edificio, especialmente un edificio sagrado, con distintos ojos que nosotros. Nuestra idea de una obra de arte como algo inherentemente inviolable les era ajena. Todo estaba subordinado a la idea religiosa. Los egipcios miraban el templo como miraban su propio cuerpo, como algo que vive, que crece, que decae y que vuelve a vivir de nuevo.

Los bloques de trece monumentos diferentes excavados por H. Chevrier en los cimientos del pilono de Amenofis III (1400-1362 a. C.), el Pilono III, que más tarde formó la parte posterior de la gran sala hipóstila, no pueden ser cascotes ni el resultado de una destrucción sacrílega. Dichos bloques habían sido cuidadosamente colocados y sus relieves estaban tan perfectamente conservados que Chevrier pudo reconstruir, a partir de algunos de ellos, una joya de la arquitectura egipcia: el pequeño pabellón con columnas de Sesostris I, del Imperio Medio. La delicadeza de estos relieves puede compararse con la de los del primer Renacimiento italiano.

La posición exacta de estos bloques en los cimientos en que fueron descubiertos no fue anotada a tiempo por los excavadores y no puede determinarse ahora. El grupo de egiptólogos relacionado con Alexandre Varille (1901-1951), que murió prematuramente en un accidente, demostró que partes de los edificios antiguos se sembraban simbólicamente, como semillas, en los cimientos de los nuevos. En Mesopotamia la precisa investigación de las partes subterráneas de un edificio era un procedimiento arqueológico natural, puesto que poco más había que investigar. En Egipto era diferente. Aquí los nuevos estudios de los cimientos, basados en su significado simbólico, condujeron al descubrimiento, por Varille y Robichon, de dos capillas ovales únicas; y en el templo a Amón-Ra-Montu en Karnak se descubrieron varias hiladas hechas con bloques que habían sido utilizados anteriormente y cuyas posiciones, así como los relieves que había en ellos, tenían un significado definido (Varille, 1954, pág. 23).

Esta idea de incluir deliberadamente piedras de un templo antiguo con objeto de añadir fuerza espiritual a la nueva estructura es completamente ajena a la concepción de una iglesia cristiana. Igualmente lo es la idea del eterno vagar, que se manifiesta en la continua extensión del templo.

El gran templo de Amón en Karnak se extendió en dos direcciones. Su entrada fue progresivamente adelantada hacia el Nilo. Se construyeron nuevas puertas, una tras otra, en dirección oeste, y sus pilonos (I-VI) crecieron como las secciones de un telescopio; la altura del último pilono tolemaico (Pilono I) nos recuerda un antiguo rascacielos de Chicago. La segunda ampliación se prolongó hacia el sur, con cuatro pilonos (VII-X), orientados hacia el templo de Mut, consorte de Amón.

La disposición interior de los templos egipcios posteriores expresa la idea de viaje. Con la excepción de la pequeña y oscura cella, donde el dios moraba en su imagen, y de sus inmediatos alrededores, todo estaba concebido como lugar de paso. No había una planta fija, estática, que cerrara siempre el mismo espacio; con el tiempo, los espacios podían cambiar tanto de forma como de tamaño. No había ningún espacio interior principal para recibir a los fieles asistentes a un servicio religioso dogmático, como en una basílica cristiana, espacio que ni se necesitaba ni se deseaba, puesto que todo estaba concebido como un lugar de paso.

Para hacer justicia a la estructura del templo egipcio, tenemos que comprender la *causa* de su diferencia de la iglesia cristiana: el predominio de los ritos sobre el dogma.

Ritos, no dogma

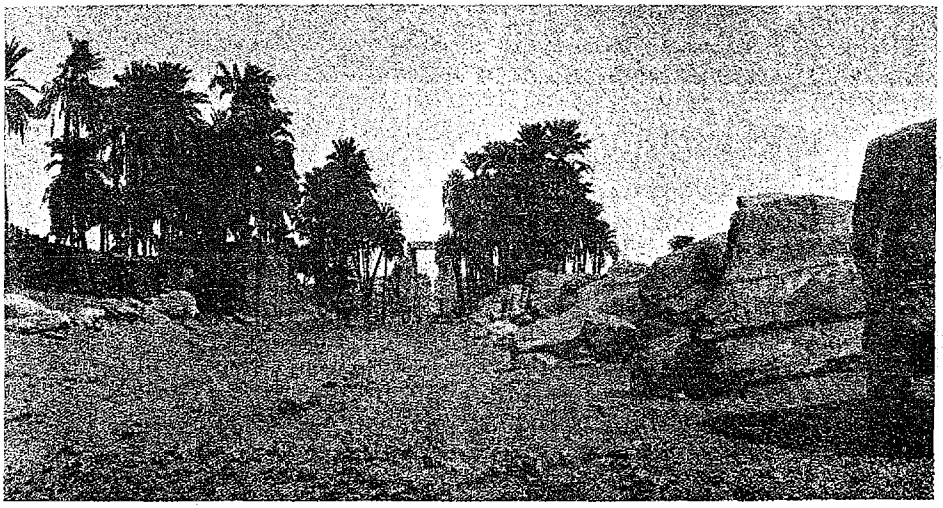
Uno de los vínculos entre la edad prehistórica y las primeras altas civilizaciones es el predominio de los ritos. Los ritos eran mucho más fuertes que cualquier dogma claramente definido y rígidamente establecido. No existía entonces el dogma en el sentido actual. Hubiera sido contrario al espíritu de toda la estructura religiosa. ¿Cómo podía establecerse un dogma cuando en Egipto existían simultáneamente tres o cuatro deidades masculinas y femeninas, siendo cada una la deidad suprema creadora del universo? Cada deidad representaba, muy sencilla-

mente, un particular centro religioso. Heliópolis, el antiguo centro del culto, había establecido a Ra, el dios solar, como suprema deidad en relación con su sistema de adoración del sol. En Menfis, solamente a unos cuantos kilómetros (fundada como capital en tiempos de la unión del Alto y del Bajo Egipto), Ptah reinó como dios supremo. En su función de creador del universo, el aspecto que más se acentuó fue su poder de invención, su imaginación creadora. Del mismo modo, los distintos templos poseían números diferentes de deidades principales: en Heliópolis había nueve y en Hermópolis, en el Medio Egipto, había ocho.

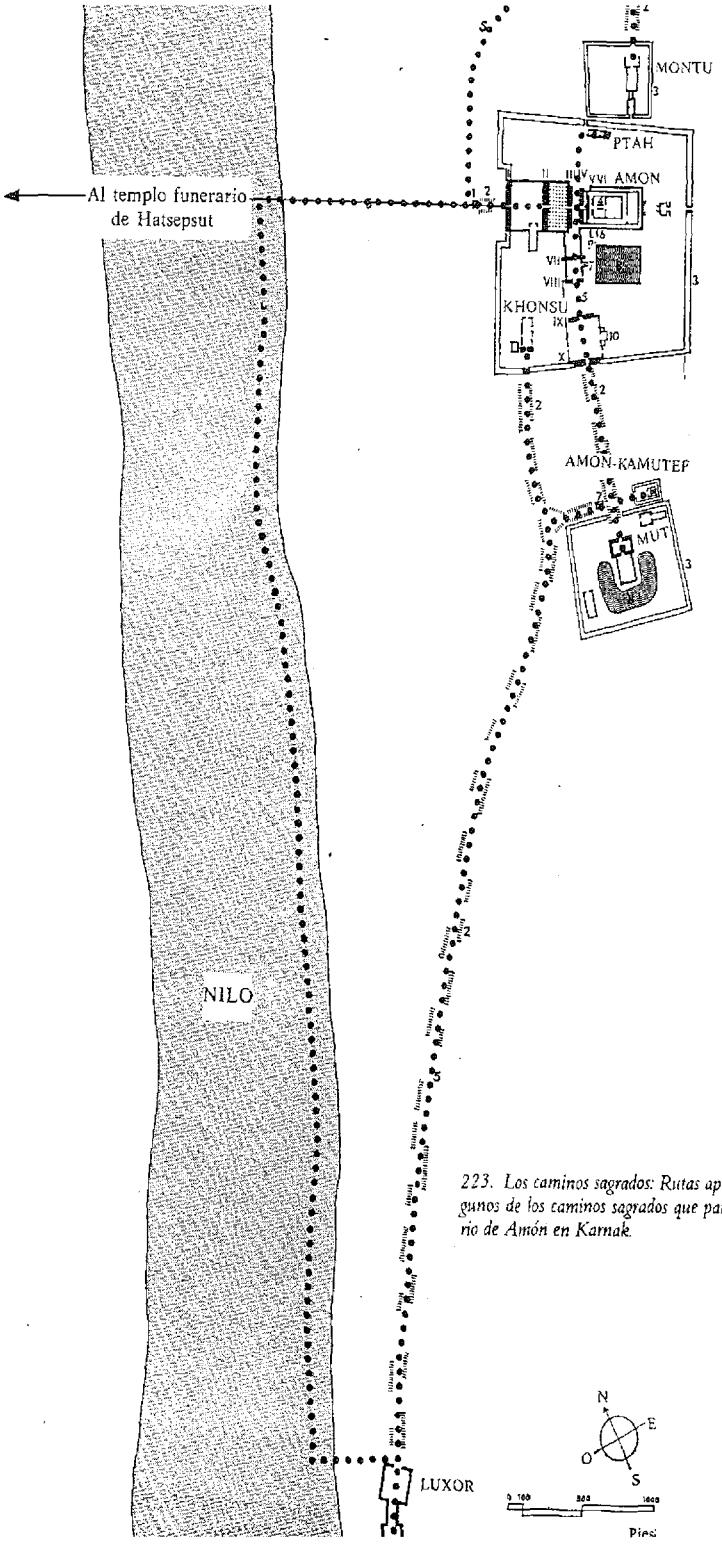
La confusión y las contradicciones que notamos en todo esto son inherentes al carácter de los dioses egipcios, con sus manifestaciones pluralistas y polimorfas. Las metamorfosis más extrañas de dioses y animales parecían naturales, así como la fusión de una deidad con otra (Isis con Hator, por ejemplo). Así como un faraón frecuentemente borraba el nombre y usurpaba la estatua de un antecesor, así un dios asumía el carácter de otro, como el imperial Amón asumió la naturaleza y el aspecto del itifálico Min. Bajo tales condiciones no podía establecerse ningún dogma claramente circunscrito.

Hubo un constante empeño en concluir algún acuerdo entre deidades semejantes que sólo diferían ligeramente en nombre o atributos. Como resultado de todo ello, los dioses en forma de halcón llegaron a unificarse bajo el nombre de Horus y la mayoría de las diosas con forma de vaca bajo el nombre de Hator.

La enorme fuerza de los ritos se expresa en los festivales en torno a los cuales giraba la vida religiosa. Los temas de estos festivales no eran transcendentales. Estaban vinculados a la tierra, como los antiguos ritos prehistóricos, dedicados en su



222. Camino sagrado de Hatsepsut en Karnak: El camino sagrado, bordeado de esfinges, sobre el eje norte-sur que conduce desde el Pilono VIII de Hatsepsut hasta el santuario de Mut, la diosa de la fertilidad.



223. Los caminos sagrados: Rutas aproximadas de algunos de los caminos sagrados que partían del santuario de Amón en Karnak.

mayor parte a la fertilidad y a la propagación de la vida. Los meses llevaban los nombres de los festivales principales, que algunas veces duraban varias semanas. El despertar primaveral de la naturaleza era celebrado en el festival de Año Nuevo y la renovación eterna de la fertilidad en la fiesta de la cosecha. Así como en los innumerables grabados rupestres neolíticos y de la edad del bronce de Noruega y Suecia todo estaba centrado en las estaciones, así en Egipto todo estaba vinculado a la tierra y relacionado con la existencia terrena. La vida en el más allá era una copia de la vida en la tierra: lo que había sido temporal en la tierra era trasladado a la eternidad sin que de ningún modo cambiara su carácter.

Los temas principales de los grandes relieves que se extienden a lo largo de las paredes de los templos del Imperio Nuevo son las procesiones que se hacían con ocasión de estos festivales de la cosecha y de la fertilidad. Todo episodio era deliberado y esencial, como todo acto protagonizado por el faraón, que acompañaba a la estatua del dios en su peregrinación anual de un santuario a otro.

Volveremos a estos ritos grabados en relieve en las paredes más visibles de los templos de Karnak y Luxor. Dichos relieves presentan los ritos más complicados ideados jamás por una clase sacerdotal. Aunque contienen los gérmenes del dogma, no son el resultado del dogma, sino que lo sustituyen.

El dogma es algo rígidamente establecido y que ha de ser acatado en letra y en espíritu; no tolera las contradicciones que se hallan en todas partes en las creencias egipcias. El dogma, en su sentido griego original, significa algo fijado, algo legalmente obligatorio. El dogma implica una ley, y dos o más leyes diferentes no pueden coexistir.

Los etnólogos han señalado frecuentemente que el principio de identidad, que ha sido el fundamento del pensamiento lógico desde los griegos, no tenía ningún significado para el hombre prehistórico y primitivo. En el terreno religioso se puede decir lo mismo de las primeras altas civilizaciones. El principio de identidad establece que un objeto A en un momento de tiempo es idéntico al mismo objeto A en otro momento de tiempo. Los egipcios fueron los primeros en lograr la máxima exactitud en el campo de la matemática geométrica por el uso del principio de identidad. Pero la lógica no penetró en los ritos religiosos. En lógica, ¿cómo podría el creyente reconocer a su dios simultáneamente bajo la forma de un escarabajo, un león, un ganso y una musaraña?

La vaguedad y la incoherencia en la esfera religiosa nunca preocuparon al espíritu egipcio. La controversia dogmática nunca provocó guerras religiosas en Egipto. El único disturbio serio se produjo cuando Akenatón (Amenofis IV) trató de abolir el carácter pluralista y politeísta de las creencias egipcias y sustituirlo por el absolutismo del culto del sol (Atón). A pesar de las diferencias fundamentales, es precisamente esta cualidad de indeterminación, esta negativa a racionalizar las relaciones con los poderes invisibles lo que significa una continuidad con la prehistoria. Detrás de esto se halla el vivo deseo de disponer de muchos modos de establecer contacto con lo invisible, sin la limitación de leyes dogmáticas. Tal vez no sea tan extraño como pudiera parecer: es un reflejo directo del destino, nunca estable, al cual todo ha de someterse.

Los caminos sagrados

Toda la organización interior del templo se deriva de las más profundas creencias de los egipcios. Estas creencias, como la naturaleza misma, nunca llegaron a estancarse. Comparado con edificios eclesiásticos posteriores —cristianos o musulmanes—, el templo egipcio está lleno de zonas prohibidas y tabúes. La tradición prehistórica de situar los santuarios en los lugares más ocultos —inaccesibles excepto para los iniciados— tiene continuación en la oscura cella donde reside la imagen del dios. Las paredes circundantes y los altos pilonos también atestiguan la necesidad de aislar los recintos sagrados. La combinación de edificios religiosos y civiles, como un templo romano en un foro o una iglesia cristiana medieval entre casas de vecindad, habría sido inimaginable.

La idea de un eterno vagar dejó sus huellas no solamente en la disposición interior del templo sino también en la relación de un santuario con otro. Cada templo egipcio se hallaba en íntima relación con los demás. Una complicada red de calzadas sagradas, de accesos sagrados, conducía de un templo a otro.

Las procesiones ceremoniales, con la imagen del dios oculta en la naos de la barca sagrada, viajaba en los grandes festivales de un templo al siguiente, de manera que la imagen sagrada pudiera ser alojada por breve tiempo en otro santuario. Una y otra vez aparecen las barcas —símbolos de movimiento— en relieves de tumbas, templos y obeliscos. Estaban inseparablemente relacionadas con los ritos ceremoniales.

Las barcas como símbolos del viaje diario del sol y del viaje errante de los dioses y de los muertos no han estado limitadas a una cultura única, y se las puede hallar en casi todas partes. La situación por lo que respecta a Egipto difiere en que, aquí, una alta civilización en la cumbre de su evolución empleó el simbolismo de la barca como el de una deidad, otorgándole una posición central en el ritual. La barca divina se conservaba en la parte más sagrada del templo, cuya forma y construcción recuerdan los tiempos prehistóricos.

Entre los grabados rupestres parcialmente prehistóricos del desierto de Nubia y del Wadi-Hammamat, así como en las representaciones de la cerámica predinástica, se ve una y otra vez que las barcas desempeñan un papel prominente. Según Helene Kantor, estas barcas frecuentemente tienen «una cabina alta cuya forma es similar al jeroglífico del santuario del Alto Egipto» (1944, pág. 124). En una pared pintada de Hieracómpolis de finales del período gerzeense, poco antes del comienzo del período histórico, «la barca más grande de la pared pintada es lo más interesante de todo, porque en lo alto de la segunda cabina se halla colocado un quiosco de construcción ligera... Dentro está situada una figura, probablemente masculina, frente a la cual hay otra figura situada fuera» (pág. 115). En el techo curvado, un poco en forma de S, y en el hombre que se halla sentado debajo, puede reconocerse el prototipo del pabellón del Heb-Sed para el jubileo del reinado, como aparece en un relieve del Imperio Medio. La pintura de Hieracómpolis muestra también la forma y estructura de la barca divina como fue representada incluso en el Imperio Nuevo. La barca como símbolo del eterno vagar nunca perdió su significado profundamente arraigado o su aspecto primevo. Las deidades permanecen erguidas en sus barcas sobre techos astronómicos, o en las dos

barcas solares de los océanos celestes primorosamente grabadas en los sarcófagos del Período Tardío, eternamente bajo el sortilegio de un viaje que no tiene fin.

Incluso en las excavaciones de Heluán, de la I Dinastía (Saad, 1951), fueron halladas barcas enterradas junto a tumbas muy humildes. En 1955 Emery descubrió en Saqqara una barca funeraria, también de la I Dinastía, muy cerca de la mastaba del faraón Udimu y dentro de la pared que la cierra.

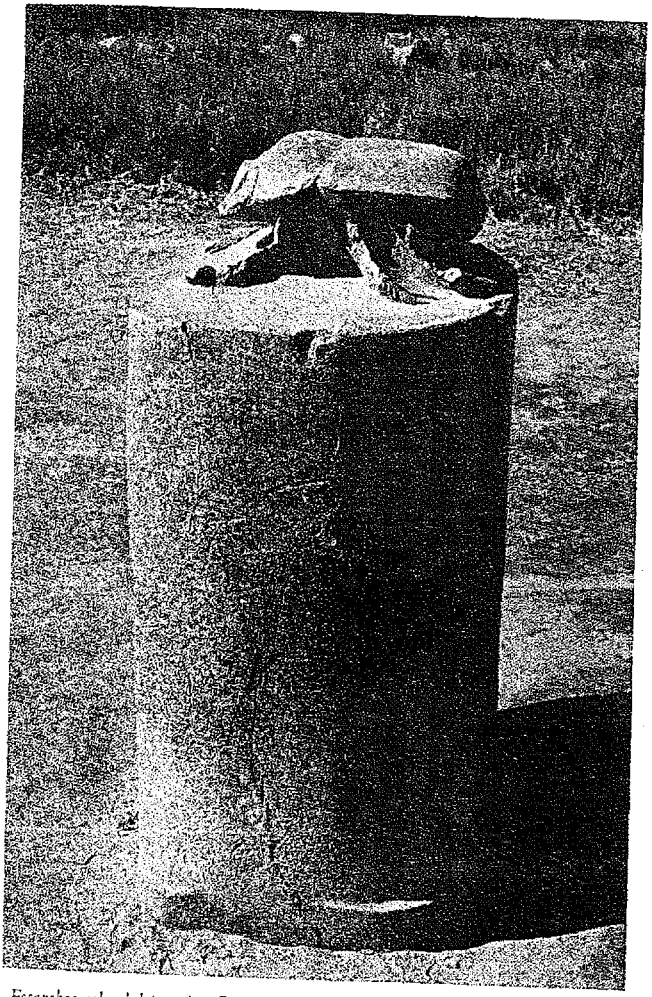
La más espléndida de todas las barcas (41 metros de longitud y 7 metros de altura) fue descubierta en 1954, en perfecto estado de conservación, al pie de la cara sur de la pirámide de Keops. Fue construida con cedro del Líbano y tenía una gran cabina; incluso las cuerdas que unían las cuadernas estaban todavía allí. El timón tiene tallada una flecha: la luz, el rayo de sol, la flecha de Neit. Las opiniones se hallan divididas en cuanto a la finalidad de esta barca de bella construcción. Probablemente sería utilizada para trasladar al rey difunto desde su residencia hasta el templo del valle. Esta barca fue la cuarta hallada cerca de la gran pirámide. En todo caso, que las barcas sirvieran para acompañar al dios Ra en su viaje diario o que —como se cree ahora— sirvieran de vehículos para los viajes de los muertos, no tiene gran importancia para lo que aquí nos interesa.

Así como los muertos tenían sus barcas, así la pequeña imagen del dios tenía su barca sagrada, en una antecámara de su cella. Sabemos exactamente cómo la barca descansaba en la antecámara en una especie de trineo y cómo era llevada a hombros por los sacerdotes (Legrain, 1916, pág. 6). Jamás tocaba el agua. Cuando viajaba por el Nilo era transportada (por ejemplo desde Karnak hasta Luxor) en una magnífica barcaza del río.

A lo largo del trayecto había lugares de descanso en forma de capillas almacenes, las cuales tenían generalmente dos paredes paralelas, tan largas como la barca sagrada y abiertas por ambos extremos. Dichas capillas servían como estaciones en el viaje sagrado de templo a templo y su esmerada decoración puede indicar que había un ritual relacionado con cada parada. Muchas estaban rodeadas de peristilos y sus paredes y pilares estaban frecuentemente adornados con delicados relieves, como los que describió Borchardt (1938). Uno de estos ejemplos ornamentados es el encantador pabellón de Sesostris I.

Con toda probabilidad, el trayecto original seguido por la imagen del dios se hacía todo él por tierra. Las inscripciones en los bloques del santuario de Hatsepsut en Karnak, hallados en los cimientos del pilono de Amenofis III, muestran que el viaje procesional de Amón, desde Karnak hasta Luxor, durante el «Magno festival de Opet», todavía se hacía por tierra en la época de Hatsepsut, descansando en el camino en seis capillas almacenes (Ricke, 1954, pág. 40).

La red de caminos sagrados que irradiaban desde el templo de Amón en Karnak conducía hasta los varios lugares sagrados en su inmediata vecindad: hasta el templo de Mut, consorte de Amón y madre de los dioses; hasta el templo de Jonsu, el hijo de Amón; hasta el lago sagrado, indispensable para ciertos ritos, y a otras partes. El eje norte-sur conducía principalmente a santuarios consagrados a los cultos de la fertilidad, masculina y femenina. El templo de Mut, al que se accedía por la avenida de las esfinges de Hatsepsut, fue edificado en su forma actual por Amenofis III y poblado con centenares de estatuas de la diosa con cabeza de leona, permaneciendo en uso hasta los tiempos tolemaicos. A corta distancia se



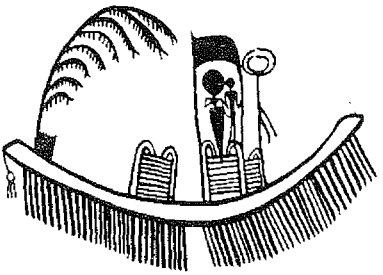
224. Escarabeo colosal de granito: Consagrado a Amón-Khepri-Ra. Fue tallado en el mismo bloque que su pedestal cilíndrico y se halla en el ángulo noroeste del lago sagrado.

hallaba el santuario de Min, el dios de la fertilidad masculina, y próximo al templo de Amón estaba el lago sagrado, probablemente dedicado al culto solar y al renacimiento eterno. En tiempos estuvo bordeado por bloques de piedra esmeradamente labrados, de los que sólo quedan fragmentos. En el ángulo noroeste del lago se halla un escarabeo de piedra gigante, tallado de la misma pieza de granito que su pedestal cilíndrico. Fue dedicado por Amenofis III a Amón-Khepri-Ra (*khepri* = escarabajo): el sol poniente, de la mañana y del mediodía.

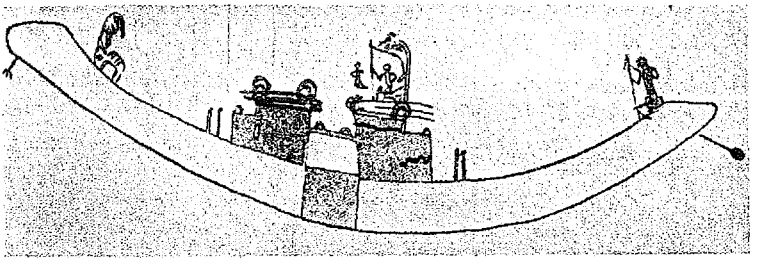
Además de los caminos por tierra estaba el camino fluvial: el Nilo. Ramsés II

dispuso un acceso monumental al mismo. En el eje este-oeste de su gran sala hipóstila construyó una avenida de esfinges con cabeza de carnero que conducía directamente al río, del mismo modo que Amenofis III, antes que él, había construido una avenida de esfinges como vía de enlace terrestre entre Karnak y su templo de Luxor, recientemente edificado.

Cuando la imagen del dios, llevada desde su santuario de Karnak, alcanzaba la orilla oriental del Nilo, su barca sagrada era embarcada. Las barcas usadas para el transporte estaban hechas de madera de cedro y eran de considerable longitud (130 codos, unos 67 metros). El casco estaba revestido de oro y plata «hasta la línea de flotación... La capilla estaba adornada con electro, oro, plata y piedras preciosas» (Wolf, 1931, pág. 51).



225. Barco prehistórico del Nilo (período de Nagada): Con dos cabinas, una rematada por dos figuras protegidas por un dosel. Dibujo en una vasija de cerámica. Tomado de Kantor.



226. Barco prehistórico del Nilo (período gerzeense): Con dos cabinas. En una de ellas una figura sedente debajo de un dosel cuya forma fue conservada en lo sucesivo para los pabellones reales en los festivales del jubileo del rey (Heb-Sed). Pintura mural de Hieracómpolis. Tomado de Kantor.

Al llegar a la orilla occidental, el viaje de la imagen sagrada continuaba por tierra hasta la necrópolis de Tebas, hasta los templos funerarios de los soberanos del Imperio Nuevo. El acceso más antiguo y más espléndido había estado formado por las rampas y terrazas del templo de Hatsepsut en Deir el-Bahari. Todo este recinto fue proyectado como un camino de recepción del dios Amón, cuya barca era conducida lentamente entre las esfinges de la reina hasta el santuario dedicado

a él en la terraza superior. Esto solamente tuvo lugar durante unos pocos años antes del deterioro del templo funerario de Hatsepsut.

Más tarde —en todo caso bajo los Tolomeos— los viajes de los dioses se extendieron incluso más lejos. La imagen de Hator fue trasladada a más de 160 kilómetros Nilo arriba, hasta Edfú, para su *hierosgamos* con Horus.

El gran templo de Amón en Karnak

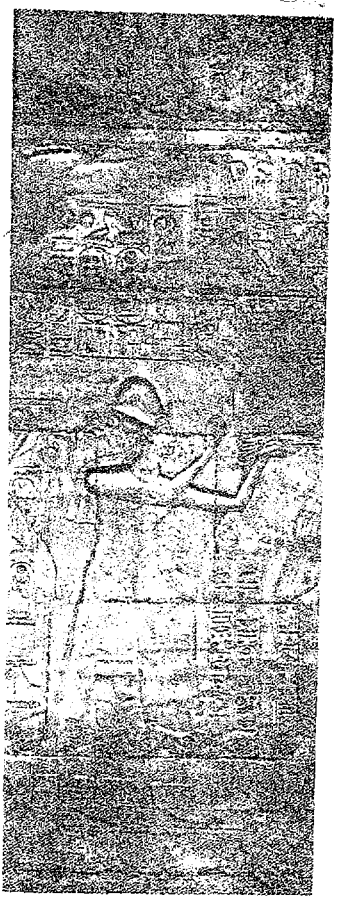
No empezaremos con el edificio más espectacular de Karnak, la gran sala de Ramsés II, sino con los comienzos del templo de Amón, el lugar de su santuario más íntimo, aun cuando esta parte está llena de problemas e incertidumbres.

El templo original de piedra caliza de Sesostris I (que no hay que confundir con su pabellón o capilla almacén) fue el punto de partida de la evolución de todos los edificios posteriores. Su emplazamiento es hoy un espacio vacío a excepción de unos pocos bloques de piedra. Según P. Barguet, el templo constaba de una sala para festivales (Heb-Sed) y tres pequeñas habitaciones, una a continuación de otra, la última de las cuales era el santuario de Amón, donde fue hallado un pedestal hecho para una estatua del dios y esculpido con el nombre de Sesostris I (1953, págs. 145-155). Los bloques de piedra caliza de este templo fueron destinados desde hace mucho tiempo a piedras de molino. Es posible que Tutmosis I, que inauguró el gran período de construcciones en Karnak, lo demoliera a finales del siglo XVI a. C. (Scharff y Moortgat, 1950, pág. 124).

Los templos de los tutmósidas

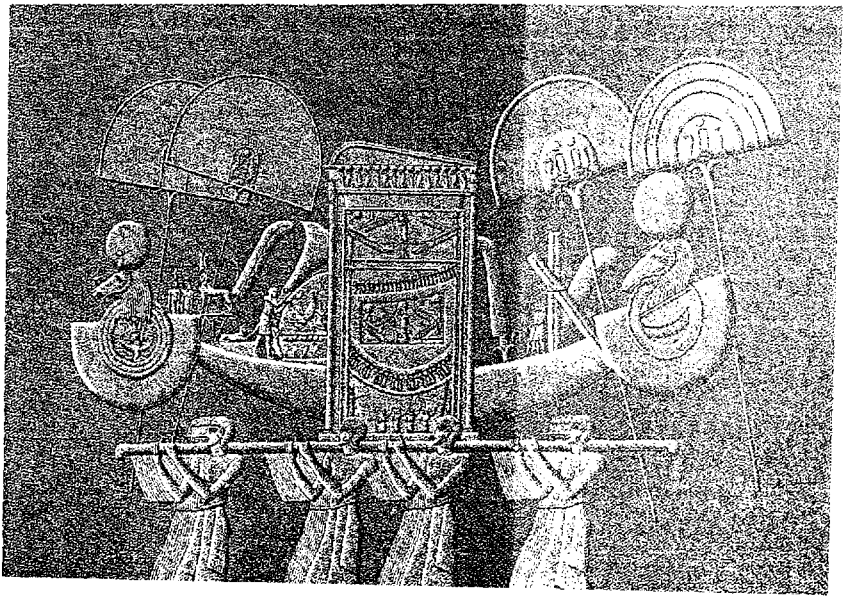
El reinado de los tutmósidas en el Imperio Nuevo marcó el nacimiento de Egipto como potencia mundial. Tutmosis I llevó las fronteras del sur casi hasta la Cuarta Catarata y las fronteras del este hasta el Éufrates. Llegó a ser un gran constructor y su interés por la construcción fue heredado tanto por su hija Hatsepsut como por su nieto Tutmosis III.

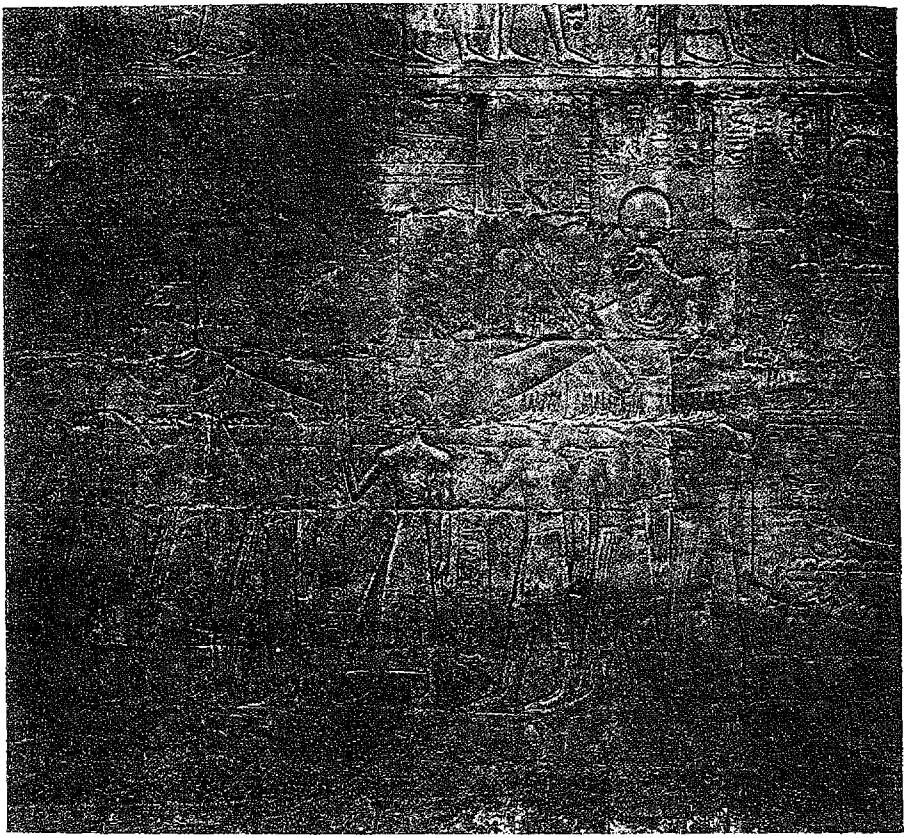
La arquitectura de los tutmósidas nunca se esforzó por alcanzar las dimensiones colosales de los ramésidas, quienes imprimieron su huella inconfundible a los santuarios imperiales unos tres siglos después. Aunque la arquitectura de los primeros a veces alcanzó dimensiones enormes (los pilonos), permaneció delicadamente estructurada y nunca perdió el contacto con la escala humana (templo funerario de Hatsepsut, sala de festivales de Tutmosis III). Cuatro de los diez pilonos de Karnak fueron erigidos por los tutmósidas. Tutmosis I construyó dos de estos enormes pórticos (ahora Pilonos IV y V), uno inmediatamente detrás de otro. Por medio de un muro circundante, incorporó el antiguo templo del Imperio Medio a su complejo recién construido. Ahora se pone en duda si se formó así un patio abierto, como aparece en la reconstrucción de Borchardt.



227. Ramsés II ofreciendo incienso ante la barcaza sagrada: El soberano lleva un triple incensario en su mano izquierda y con la derecha arroja granos de incienso dentro del incensario, estando indicada su trayectoria por una curva de puntos. Pared sur de la gran sala hipóstila de Karnak.

228. Barcaza sagrada en procesión: La barca sagrada, llevada a hombros por los sacerdotes, contiene una pequeña imagen de Amón que era transportada en algunos festivales para que descansara durante breve tiempo en otro santuario. Relieve de la gran sala hipóstila de Karnak. Tomado de «Description de l'Égipte».





229. Barcaza sagrada a hombros de los sacerdotes: Los sacerdotes con cabeza de halcón llevan la barcaza en filas de cinco, andando un paso hacia atrás y hacia delante y anunciando la voluntad de Amón. Pared sur de la gran sala hipóstila de Karnak.

La sala hipóstila de Tutmosis I

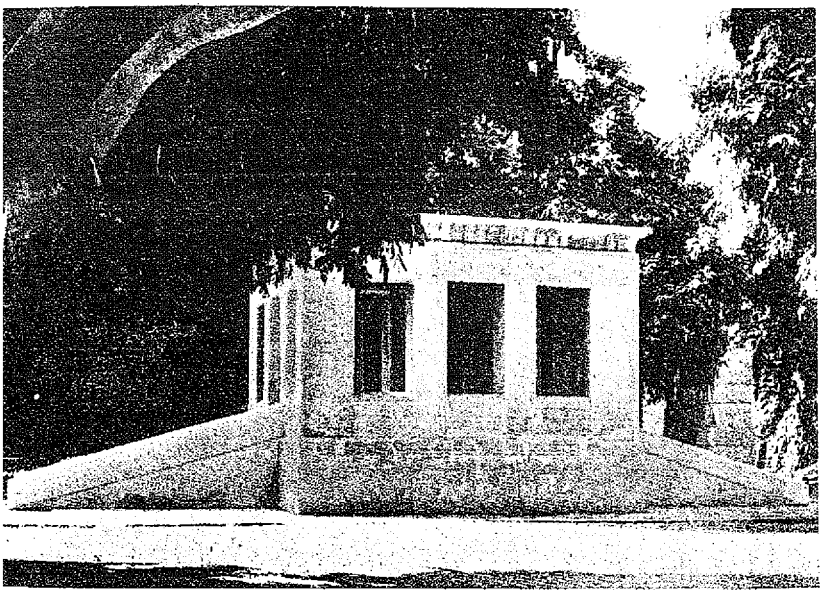
Entre las altas paredes de los dos pilonos había espacio para una estrecha sala transversal al eje principal. En su época el techo de madera estaba sostenido por una única fila de columnas de madera. Esta era la sala hipóstila de Tutmosis I. El pilono exterior, el IV, era considerablemente más grande y más sólido, y hasta la época de Amenofis III (1400-1362 a. C.) formó la entrada al templo de Karnak. Delante de las dos torres de este pilono Tutmosis levantó dos obeliscos de granito. En la época de los tutmósidas, el eje principal este-oeste, al que más tarde reforzó sólidamente la gran sala hipóstila de Ramsés II, acababa en este pilono.

En el apretado espacio situado inmediatamente enfrente y detrás del santuario más interior, los edificios estaban tan apiñados que al final de la época de los tutmósidas llegaron a unirse. Este amontonamiento se debió en parte a los esfuerzos de Tutmosis III por destruir todas las construcciones de Hatsepsut.

Los obeliscos de Hatsepsut

En la estrecha sala hipóstila edificada por su padre, la reina Hatsepsut erigió dos obeliscos de granito de Asuán, posiblemente para dar realce a la entrada al nuevo santuario que había levantado detrás. Este último se alzaba entre el Pilono V y el antiguo templo del Imperio Medio y estaba destinado a capilla para alojar la barcaza de Amón. A derecha e izquierda se hallaba flanqueado por capillas más pequeñas decoradas con relieves. Nada ha quedado de este santuario excepto algunos bloques con relieves que fueron descubiertos en los cimientos del pilono de Amenofis III (ahora Pilono III). El sobrino de Hatsepsut, Tutmosis III, que reinó conjuntamente con ella, profesaba tal odio a la reina que destruyó todas las obras suyas que pudo. Entre ellas estaba esta construcción de cuarcita roja que sustituyó parcialmente por una suya.

Los dos grandes obeliscos de granito de Hatsepsut, de cerca de treinta metros de altura, tuvieron un destino más afortunado. La reina se sentía particularmente orgullosa de ellos: eran el resultado de siete meses de trabajo y su traslado desde



230. Capilla almacén para la barcaza sagrada: Lugar de descanso para la barcaza sagrada en sus viajes procesionales, con rampas a ambos extremos y aperturas alrededor: utilizada anteriormente como pabellón del Heb-Sed. Sesostris I, Imperio Medio.

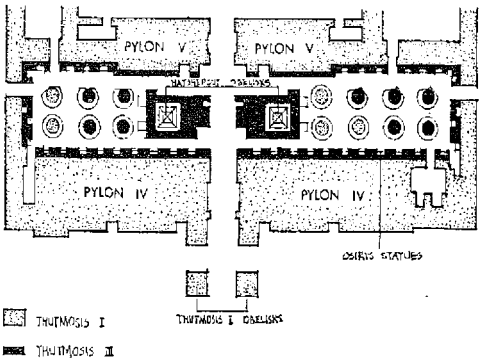
Asuán es recordado en los relieves de la reina en Deir el-Bahari. Sus piramidiones eran de granito rosado revestidos de electro (oro y plata). Fueron hechos «para elevarse hasta el cielo, para ser vistos desde lo largo y lo ancho de ambas orillas del Nilo, y para iluminar a Egipto como el sol» (Bissing, 1949, pág. 161). Tutmosis III los encerró dentro de una torre de la cual sobresalían solamente las partes consagradas a Amón. Uno de ellos sigue estando en ese estado.

Entre la capilla de granito de Hatsepsut para la barca de Amón y el Pilono V, Tutmosis III edificó una sala de anales para guardar las relaciones de sus grandes hechos y campañas. Algunos de los bellos pilares heráldicos todavía se conservan, y contienen, en el poco empleado altorrelieve, símbolos del norte y del sur; papiros y flores de lis, con capullitos y largos tallos, recorren la altura total de los pilares.

Este edificio estaba comprimido en el apretado complejo enfrente del santuario más interior. Si no quedara nada más de Tutmosis III, tendríamos un cuadro muy pobre del carácter del gran conquistador, pero a oriente, justamente más allá del templo del Imperio Medio, erigió un palacio sagrado que puede compararse con Deir el-Bahari. En toda su articulación, espacial y estructural, constituye el apogeo de la arquitectura egipcia. Desde el punto de vista estructural nunca fue superado. Este edificio, cuya verdadera finalidad se desconoce, es la llamada sala de festivales. La arquitectura de los comienzos de la XVIII Dinastía, que había tenido su origen en Deir el-Bahari, manifestó aquí un grave avance.

La sala de festivales tectónica de Tutmosis III

En el extremo oriental del gran templo, detrás incluso de los restos del santuario del Imperio Medio, se extiende la sala de festivales o, mejor, el edificio de festivales de Tutmosis III. Su nombre egipcio, Akh Menou («monumento brillante»), ha sido diversamente interpretado. Era utilizado como escenario del festival del jubileo real, y simultáneamente como una especie de «templo de la fama» para glorificar las hazañas del gran conquistador.



231. Plano de la sala hipóstila de Tutmosis I: Esta estrecha sala hipóstila estaba originalmente techada y tenía una sola fila de columnas de madera. Según Chevrier.

Se trata de un tipo de edificio único: una sala hipóstila rodeada en tres lados por cámaras grandes y pequeñas. No tuvo sucesores, y se comprende que Vandier lo hallara «à vrai dire, assez mystérieux» (1955, II, pág. 900).

La sala de festivales estaba incluida en el itinerario procesional de la barca de Amón-Ra, como indican un almacén para la sagrada barca situado junto a la entrada sur, la existencia de un espacio destinado a que la barca diera la vuelta y otros detalles, tales como las columnas de la nave central que se estrechan hacia abajo y especialmente la forma de sus capiteles. Se trata de una transformación en piedra de las delgadas columnas de madera que desde la I Dinastía habían servido para soportar el dosel del pabellón del Heb-Sed. Sus basas circulares están recortadas a lo largo de la nave central, como en el santuario de Luxor, para permitir el libre paso de la barca sagrada, llevada a hombros por los sacerdotes.

El Akh Menou era al mismo tiempo una acción de gracias a los dioses principales por el triunfo y la gloria que habían concedido a Tutmosis III, lo cual se halla íntimamente combinado con las muestras de exaltación de su persona y sus hechos. En la Sala de los Antepasados, Tutmosis se halla representado haciendo ofrendas a los nombres de cincuenta y siete reyes a quienes consideraba como antepasados suyos: la llamada Tabla de los Reyes de Karnak, actualmente en el Louvre. Una de las cámaras con columnas todavía contiene relieves de plantas y animales raros traídos por el faraón de sus muchas campañas en Siria, manifestando un interés por la introducción de la fauna y la flora exóticas semejante al demostrado por la reina Hatsepsut en anteriores representaciones de productos del país de Punt (Somalia).

Esta sala de festivales siguió siendo utilizada durante largo tiempo. Más de un milenio después, Alejandro, al restaurar una de las cámaras, sustituyó la imagen de Tutmosis III sacrificando a los dioses por la suya propia.

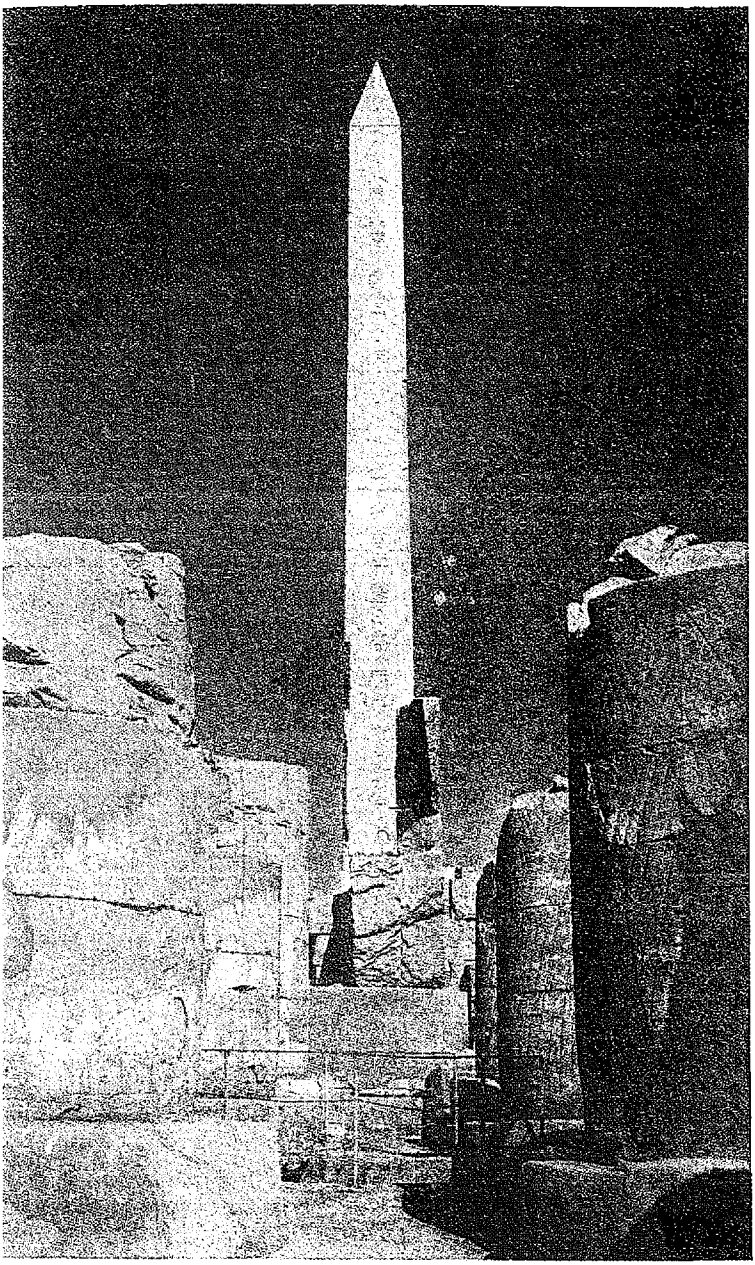
Aspectos tectónicos

En la sala hipóstila comienzan a surgir nuevos aspectos espaciales y tectónicos. Ningún otro edificio de la arquitectura egipcia logró una interacción tan imaginativa entre elementos tectónicos y diferenciación espacial. La sala hipóstila forma el núcleo del conjunto (44 metros de anchura y 16 m de profundidad). Consta de una triple nave acompañada a derecha e izquierda por dos galerías exteriores. En tres lados se articulaban unas cuarenta cámaras, unas grandes, otras pequeñas, otras llenas de columnas. Todo el conjunto ha sido meticulosamente descrito por Vandier (1955, II, págs. 890-901).

La nave central es ligeramente más ancha que las laterales. También parece más alta, pero no lo es. En realidad las tres naves tienen la misma altura. La impresión de que son diferentes se produce por el sutil entrelazado de elementos espaciales y tectónicos. Lleva algún tiempo comprender los medios utilizados para crear esta ingeniosa interacción, la cual no puede deducirse de la planta, y, que sepamos, no existen alzados o secciones de esta construcción única. Aquí presentamos simplemente un tosco diseño dibujado a mano alzada para facilitar la orientación.

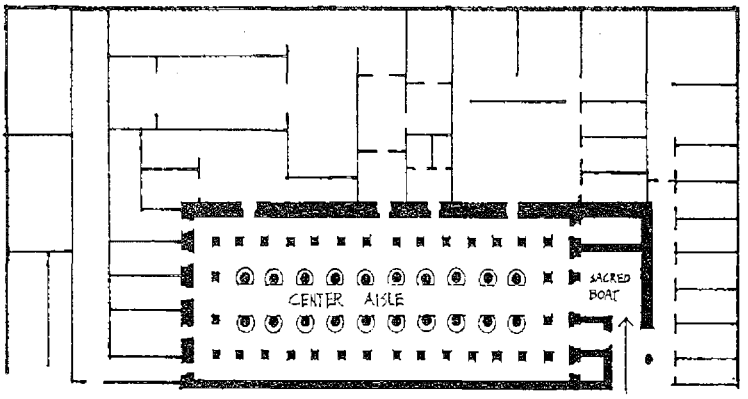
La nave central parece más alta que las que la flanquean, aunque todas están

232. Nave izquierda de la sala hipóstila de Tutmosis I: Una fila de estatuas colosales de Osiris se extiende a lo largo de la pared norte. Hatsepsut sustituyó las columnas de madera por otras de piedra y colocó sus dos obeliscos en el centro del eje longitudinal.



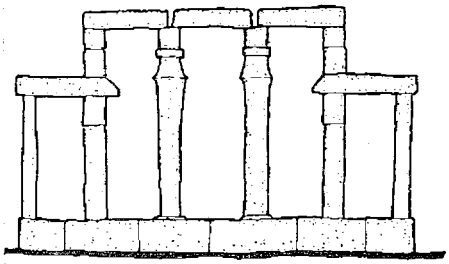
233. Nave central de la sala hipóstila de Tutmosis I: Uno de los obeliscos de granito rosado de Hatsepsut todavía se alza hasta treinta y dos metros de altura. Alrededor del obelisco hay restos de la estructura de arenisca erigida por Tutmosis III para ocultarlo. La altura de este obelisco sólamente fue superada por la del de Tutmosis III, situado detrás de su sala de festivales.

234. Nave exterior de la sala de festivales de Tutmosis III: El Akh Menou. La pared exterior de este lado se ha derrumbado.

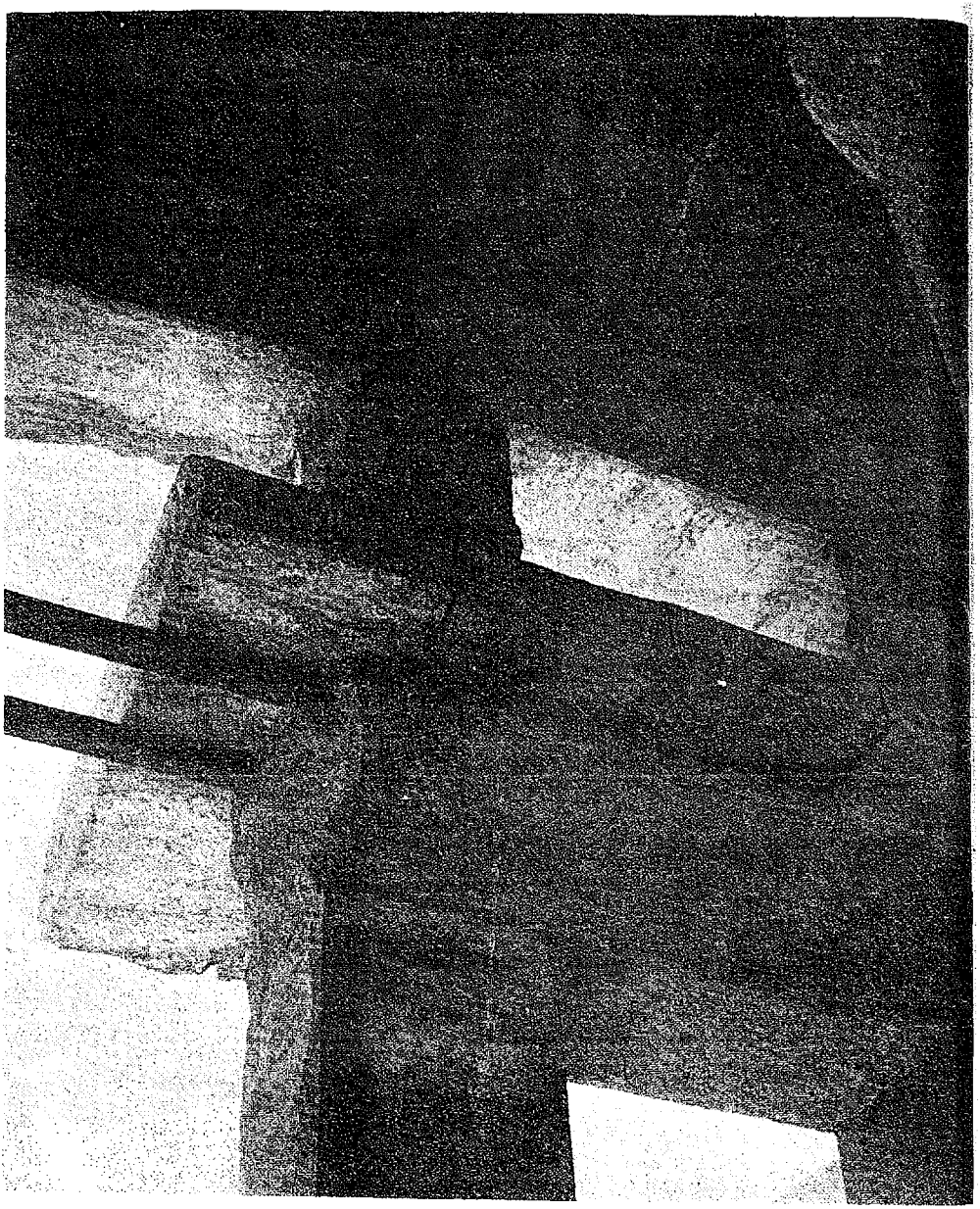


235. Planta de la sala de festivales: Rodeada de cámaras excepto por el lado occidental. Se ha dejado espacio a la entrada (a la derecha) para girar la barca sagrada en la procesión. El aspecto más interesante de esta sala es la estructura hipóstila, con sus tres naves centrales y dos naves laterales más bajas. Según original de Chevrier.

236. Nave occidental de la sala de festivales: Las vigas que antiguamente cubrían la nave lateral están voladas en el espacio. Había pilares, cortos y cuadrados, a lo largo de la nave lateral y altas y esbeltas columnas a lo largo de la nave central.



237. Sección transversal de la sala de festivales: La altura de las tres naves centrales es idéntica, pero la de en medio parece mucho más alta. Esta diferencia se logró muy ingeniosamente dando a los pilares cuadrados laterales solamente la altura de las naves exteriores y rematándolos con vigas que sobresalían interiormente y estrechas aberturas para la luz. Dibujo según modelo del autor.



238. Iluminación de la sala de festivales: Aberturas para la luz encima de las vigas salientes de la nave occidental.

cubiertas por el mismo techo plano. Esto se efectúa por varios medios. Los treinta y dos pilares cuadrados y las paredes que cierran las naves laterales son considerablemente más bajos que las veinte columnas centrales āhusadās. Están coronados por un arquitrabre continuo encima del cual se halla el elemento decisivo que produce la impresión de alturas diferentes: una serie de losas transversales que sirven como alféizares bajo una banda de estrechas aberturas horizontales. Siguiendo una antigua costumbre egipcia, los extremos interiores de estas losas transversales están tallados en ángulo con objeto de reducir la penetración de la luz directa, como en el templo del Valle de Kefrén, de alrededor de un milenio antes. Las losas sobresalen hacia fuera para formar el techo de las dos galerías exteriores, cuya altura determinan. El saliente simultáneo de las losas a ambos lados de los soportes verticales, así en las naves laterales como en las galerías exteriores, revela un vigoroso ingenio arquitectónico y una considerable imaginación en la construcción. Media un gran abismo entre los monolitos del templo del valle de Kefrén, con su sencilla estructura de carga y apoyo, y la construcción diferenciada del Akh Menou, donde las vigas de piedra se han convertido en centros de apoyo, casi como en la construcción de hormigón armado. Aquí puede vislumbrarse el nacimiento de una sutil estructuración de la arquitectura de piedra. Pero, como la organización espacial de las terrazas de piedra de la reina Hatsepsut en Deir el-Bahari, no evolucionó posteriormente. Ni antes ni después la arquitectura egipcia logró un dominio tan completo de los elementos tectónicos de expresión como en la sala hipóstila de Tutmosis III. Y esto en proporciones modestas. Se trata de una arquitectura basada en los más pequeños cambios dimensionales. ¡Espíritu y no masa!

Tutmosis era despiadado por naturaleza. Sabía odiar. Por otra parte es un signo de un sentido interior de equilibrio que el más grande de los reyes guerreros de Egipto se mantuviera aquí dentro de tan nobles límites.

En el eje este-oeste de la Sala de festivales, pero hacia oriente, Tutmosis erigió un solo obelisco: también un acontecimiento único. Su emplazamiento exacto fue descubierto recientemente por Barguet (Vandier, 1955, ii, pág. 931). Es el obelisco más alto que se conoce. El emperador Constantino lo llevó a Roma en el siglo IV d. C. Hoy, todavía solitario, se alza frente al palacio de Letrán.

El eje norte-sur de Karnak

Todos los edificios hasta aquí descritos fueron colocados inmediatamente delante y detrás del santuario más interno del templo de Karnak, pero este eje este-oeste —la orientación natural para un santuario— sólo adquirió su abrumadora monumentalidad en la XIX Dinastía, bajo los ramésidas.

Los tutmósidas habían creado un eje monumental hacia el sur. Una red de caminos sagrados conducía ya a varios santuarios vecinos y por tierra hasta el templo de Luxor. Este eje sur partía casi en ángulo recto hacia el pilono de Tutmosis I (ahora Pilono IV). Dicho eje estaba jalonado por una serie de postes indicadores monumentales: los pilonos.

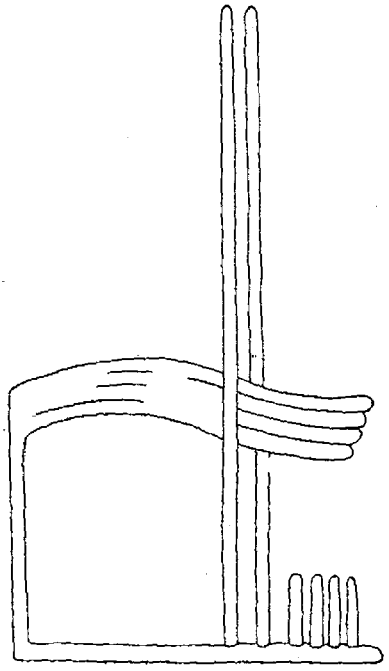
En la época de la reina Hatsepsut el camino procesional procedente del norte

penetraba en el interior del recinto del templo justamente enfrente del Pilono IV. Un nuevo pilono (ahora el VIII) fue construido exactamente en el punto en el cual el camino procesional dejaba el recinto del templo hacia el sur. Hatsepsut tomó la iniciativa principal, aunque no es seguro que Tutmosis I hubiera comenzado ya. Pero la generosidad con que el Pilono VIII se adelanta, y sus relaciones plásticas, recuerdan la amplitud de las terrazas de Deir el-Bahari.

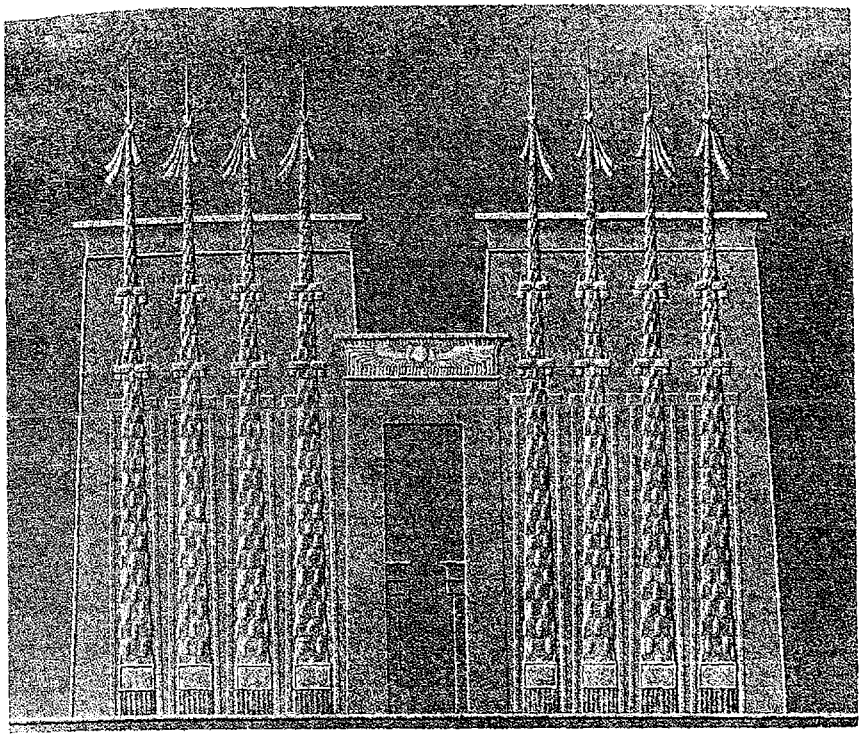
Los pilonos como barreras monumentales

El pilono está compuesto por unas altas paredes inclinadas y una amplia entrada a los recintos sagrados. A derecha e izquierda, inmediatamente contiguos, está acentuado por altos mástiles, obeliscos y estatuas colosales de los reyes. Las superficies de sus paredes suavemente inclinadas llevan relieves rehundidos cuyos contornos, delicados pero fuertemente grabados, sobresalen incluso bajo la intensa luz del sol.

Este montaje arquitectónico, sumamente impresionante, está cargado de simbolismo. Las dos torres que lo flanquean simbolizan las cordilleras que encierran



239. Santuario de la I Dinastía con dos altos mástiles: Desde los comienzos del imperio egipcio, delante del santuario se colocaron dos mástiles altísimos. Dibujo según original de Flinders Petrie.

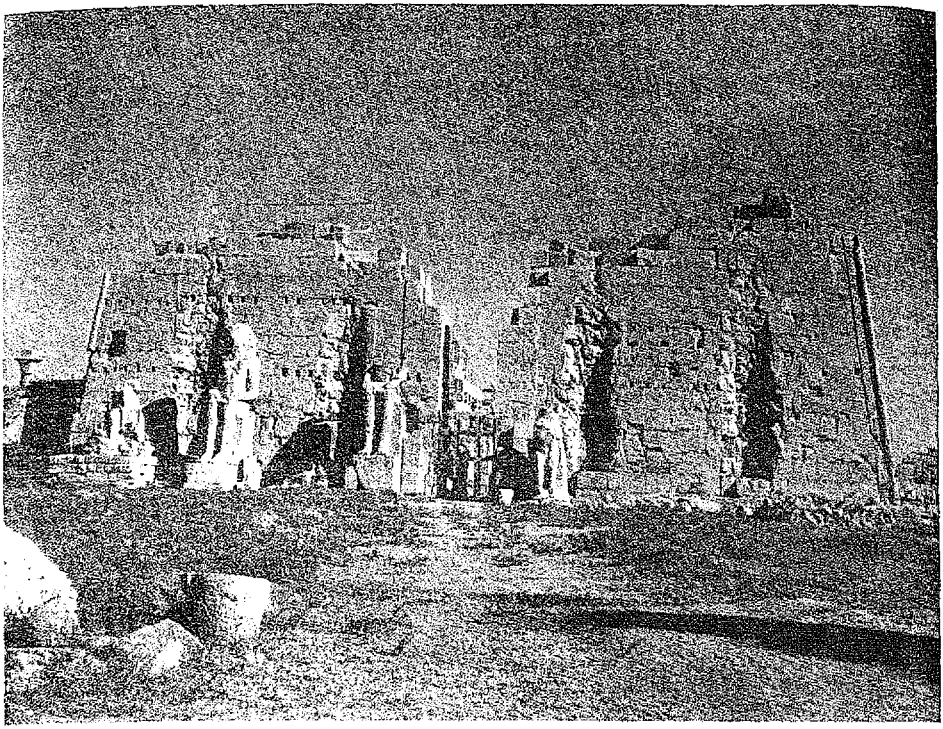


240. Pilono II de los ramésidas: Altos mástiles con flotantes gallardetes se elevan por encima del pilono. Aguatinta de un relieve de la XX Dinastía en el templo de Konsu. Tomado de «Description de l'Égypte».

el valle del Nilo por cada lado, este y oeste. Son transmutaciones del jeroglífico de Amón-Ra: el disco solar entre dos montañas, lo cual significa: «El dios está en su horizonte».

Los mástiles de madera de cedro con sus banderines eran originalmente «el poste *ntr*. Era... un poste envuelto por una banda de tela de color, atada con una cuerda a la mitad del palo, la parte superior de la banda sobresaliendo en lo alto como un faldón. El doctor Griffith supuso que se trataba de un fetiche, es decir, un hueso cuidadosamente envuelto con tela... Como jeroglífico este poste envuelto expresa *ntr*, 'dios', 'divino'... convirtiéndose gradualmente en determinativo de divinidad» (Newberry, 1924, pág. 189).

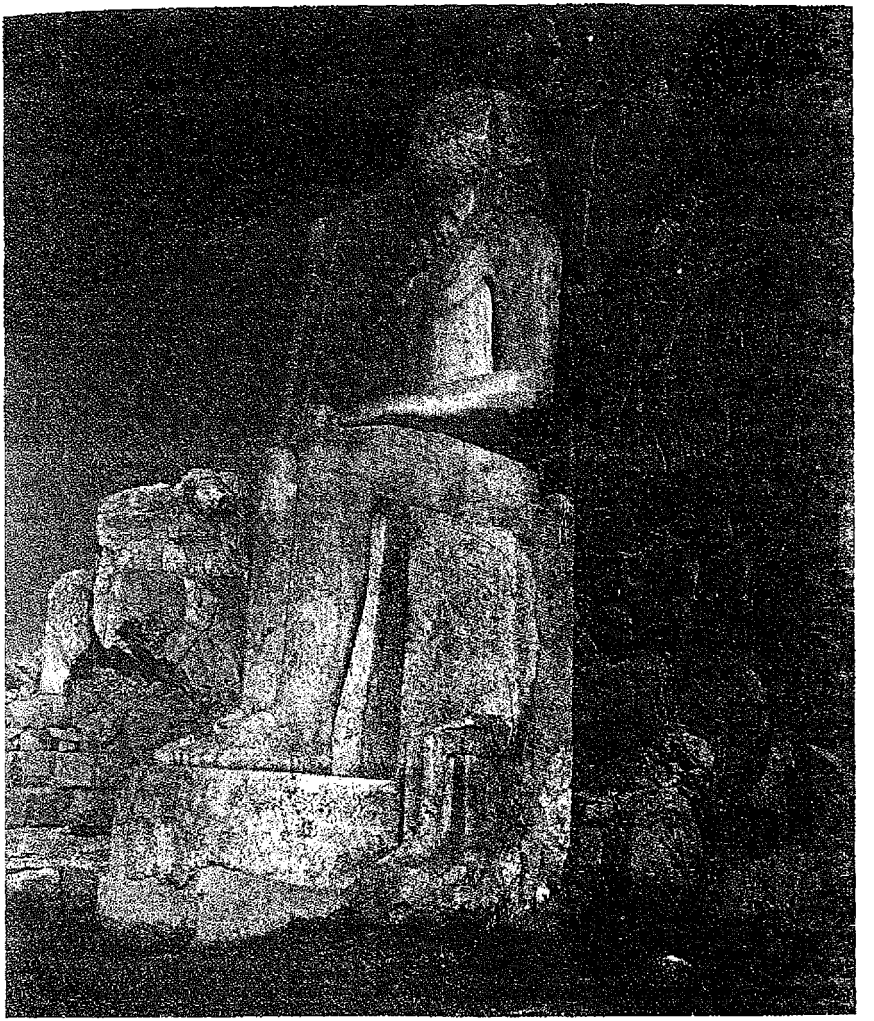
Por consiguiente el pilono simboliza la entrada al recinto sagrado. Los obeliscos con sus piramidiones significan la morada del dios; los mástiles significan su presencia, y las estatuas colosales de los reyes, los hijos vivientes del dios. El pilono es una falange de divinidad. Aquí la deidad se manifiesta simbólicamente al pueblo. Todo lo demás es secreto.



241. Pilono VIII de Hatsepsut abriendo el eje sur. El más antiguo de los cuatro pilonos a lo largo del camino sagrado que conducía por el sur a varios santuarios de la fertilidad. Es el que mejor se conserva de todos.

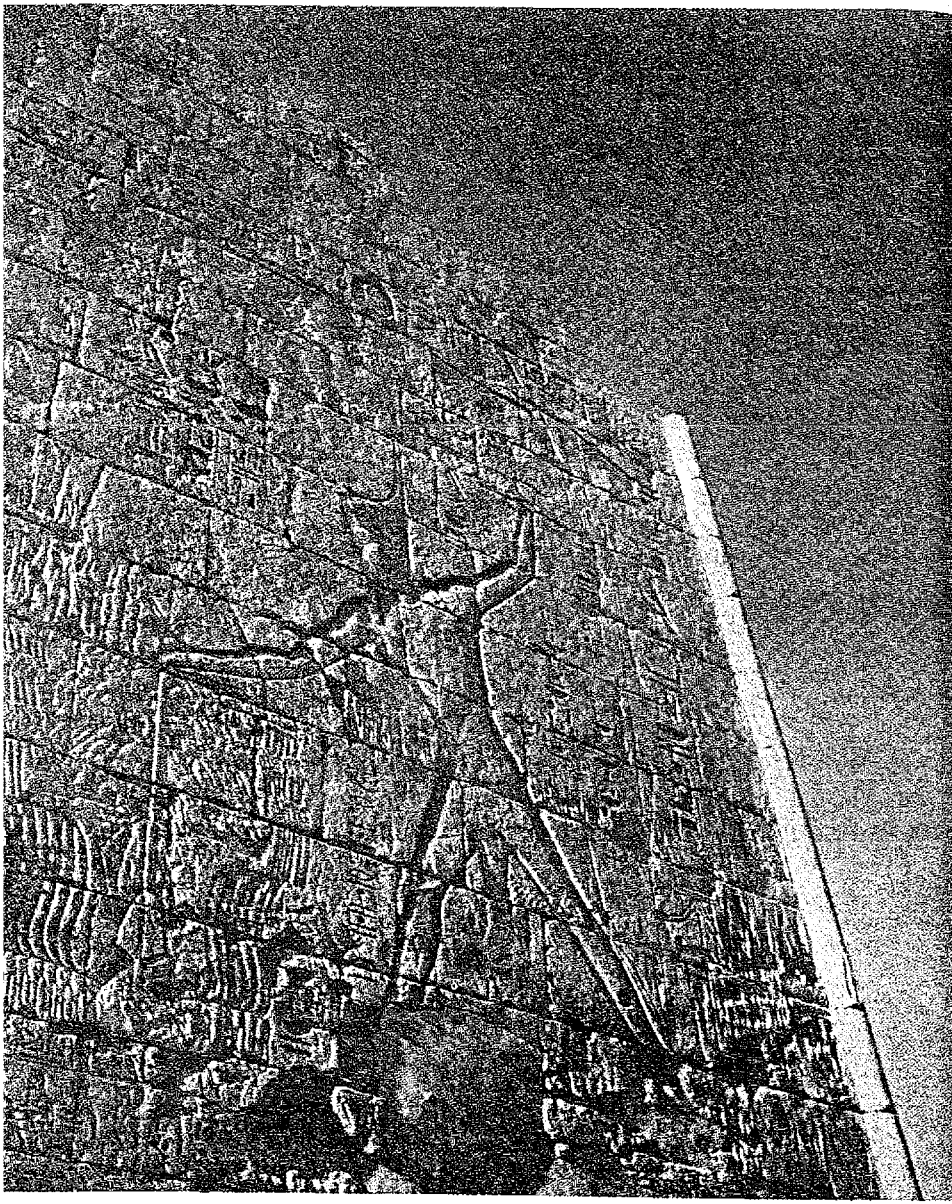
A comienzos del Imperio Nuevo, bajo los tutmósidas, los pilonos se convirtieron en los elementos más significativos de los grandes templos. Aunque la palabra griega *pylon* significa puerta de entrada, en realidad el pilono cumplía una función de barrera a manera de fortaleza. Aquí reside su diferencia con los Propíleos de Atenas. La entrada a la Acrópolis, con sus sucesivos pórticos en disminución, ofrece a los fieles una acogida amistosa en el recinto sagrado. El pilono exige un alto.

En una tesis actualmente en preparación, un egiptólogo francés intenta demostrar que el pueblo no era admitido más allá de la puerta de entrada. Un examen de los pilonos de Tutmosis I, Amenofis III y Ramsés II muestra que el gran pórtico va disminuyendo hasta una pequeña antecámara, la cual, en comparación con las enormes masas de los pilonos, no se diferencia de la entrada a una colmena, y que estaba efectivamente bien guardada. Esto puede ser diferente en el caso del Pilono I de Karnak, que fue erigido por los tolomeos, pero no fue edificado hasta cerca del final de la época griega.



242. Pilono VIII, con estatua sedente de Hatsepsut.

Los pilonos son la manifestación monumental de una tradición que se remonta a los comienzos de Egipto y tal vez todavía más lejos: el anuncio de un santuario cerrado. En las empalizadas que rodean el patio de un templo en forma de choza de cañas (el santuario de Neit) de la I Dinastía, dos altos mástiles sostenían los emblemas triangulares de la deidad. Otro santuario de la I Dinastía, como lo dibujó Flinders Petrie, es aún más convincente en cuanto a la primitiva importancia de los mástiles altos. En los relieves de la «tumba sur» de Zoser aparecen



243. Pilono VII, con relieve de Tutmosis III: La reina Hatsepsut dejó un generoso espacio entre su Pilono VIII y los santuarios del templo de Amón. Tutmosis III edificó su Pilono VII dentro del amplio patio interior. El gigantesco relieve del faraón lo muestra dando muerte a sus enemigos, relativamente diminutos. Esta clase de representación iconográfica se conservó desde la paleta de Narmer, de la I Dinastía.

unos postes semejantes, probablemente recordando los antiguos y venerados santuarios. El pilono del Imperio Nuevo, con sus altos mástiles de madera y sus obeliscos, impide que los no iniciados penetren más allá.

Solamente tenemos un conocimiento fragmentario de los antecesores del pilono en el Imperio Medio. Del templo de Sesostris I en Heliópolis sólo queda un obelisco, el más antiguo que se conoce. Hay muchos vacíos en lo que queda de otros templos de este período (Vandier, 1955, II, págs. 595-658), por lo que no pueden sacarse conclusiones ciertas. Los antecesores más probables de la forma monumental posterior son las grandes puertas de los monumentos funerarios del Imperio Medio con sus paredes inclinadas.

Las tensiones experimentadas en el pilono entre paredes enormes y macizas, delicados relieves, obeliscos, mástiles de banderas y estatuas colosales unidas a la pared, están llenas de entusiasmo arquitectónico. Nuestra época actual tiene de nuevo una gran afinidad con tan dramáticas relaciones, aunque todavía no ha encontrado el modo de dominarlas en un lenguaje contemporáneo.

El Pilono VIII de Hatsepsut

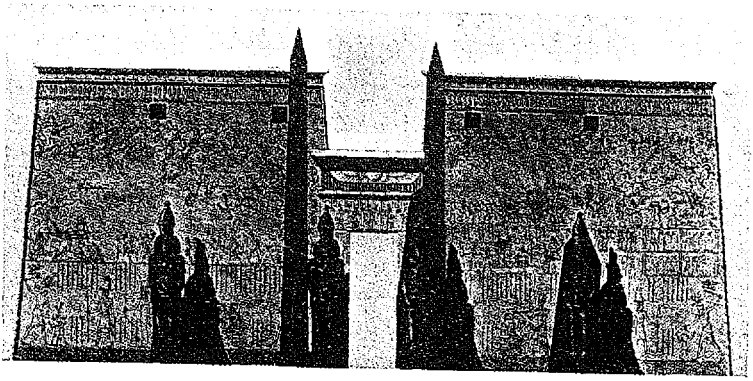
Con su Pilono VIII, la reina Hatsepsut inauguró el eje norte-sur a gran escala. Como en sus otros edificios, Hatsepsut siguió exteriormente la tradición establecida, pero interiormente hizo muchos cambios. La forma del pilono es la convencional: trapezoidal, con paredes inclinadas y más estrechas por arriba, filetes redondos en los ángulos, y una moldura de cornisa agargantada tal como era costumbre desde la época de Zoser. Las bases profundamente empotradas para los altos mástiles y los relieves rehundidos que representan a Hatsepsut tratando con los dioses son también tradicionales. No quedan señales de obeliscos.

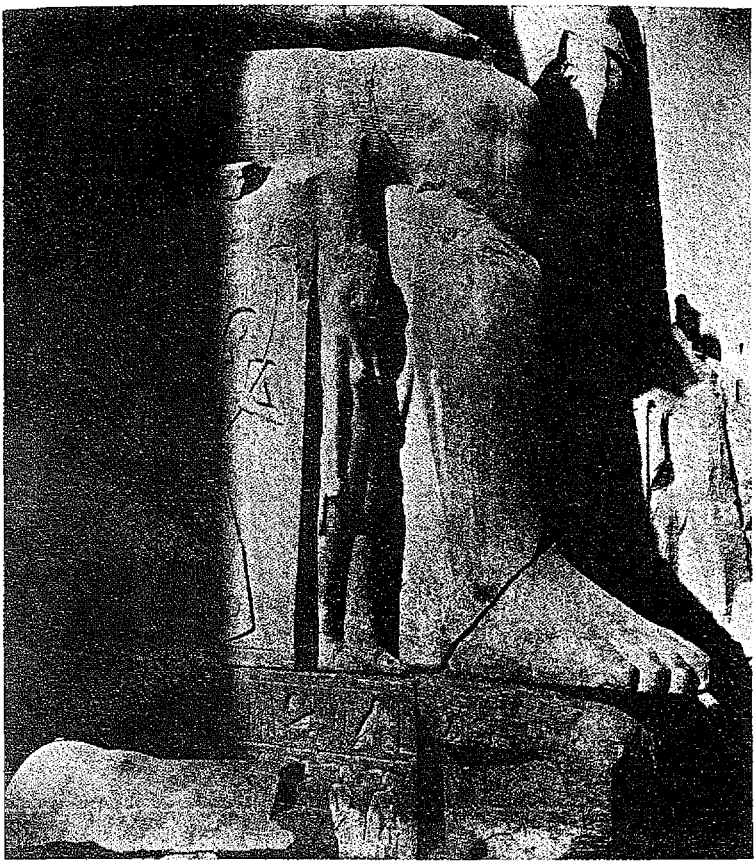
Son los tutmósidas los que ocupan el primer plano: Tutmosis I, Tutmosis II, Amenofis I —el antepasado de Tutmosis I— y la propia Hatsepsut. Esta reunión de antepasados delante de un pilono es inusual. Aquí, en el centro religioso del reino, Hatsepsut reiteró en escala monumental —como a través de un amplificador— lo que para ella era del mayor interés y que sus relieves de Deir el-Bahari exhiben de la manera más variada: la legitimidad de sus aspiraciones a la soberanía. «Incluso en su lamentable condición actual, las relaciones maravillosamente armoniosas de las estatuas con la estructura se mantienen. Y el simbolismo tuvo que haber impresionado profundamente al visitante egipcio cuando los soberanos de aquel tiempo le daban la bienvenida en el umbral del santuario imperial» (Bissing, 1949, pág. 156).

Tutmosis III usurpó la colosal estatua de Hatsepsut, la cual es, por casualidad, la mejor conservada de las cuatro. Antes se suponía que esta estatua representaba a un rey anterior, pero von Bissing comprobó que la figura era Hatsepsut. Todo el pilono expresa una unidad indivisible. La escala desarrollada aquí revela la mano de un maestro constructor. La cerrada compresión del edificio de Tutmosis I, una estructura insuperada hasta el advenimiento de Hatsepsut, había acabado. Este pilono dio impulso al eje norte-sur. Estaba situado tan lejos del conjunto que Tutmosis III pudo instalar su propio Pilono VII en el patio intermedio.

244. Templo de Luxor, pilono de Ramsés II.

245. Templo de Luxor, reconstrucción del pilono de Ramsés II: Aguatinta de 1812 reproduciendo los dos altos obeliscos que por entonces se alzaban aún delante del pilono. Uno de ellos se halla ahora en la plaza de la Concordia de París. Dos de las estatuas de Ramsés II eran figuras de pie. Tomado de «Description de l'Égypte».

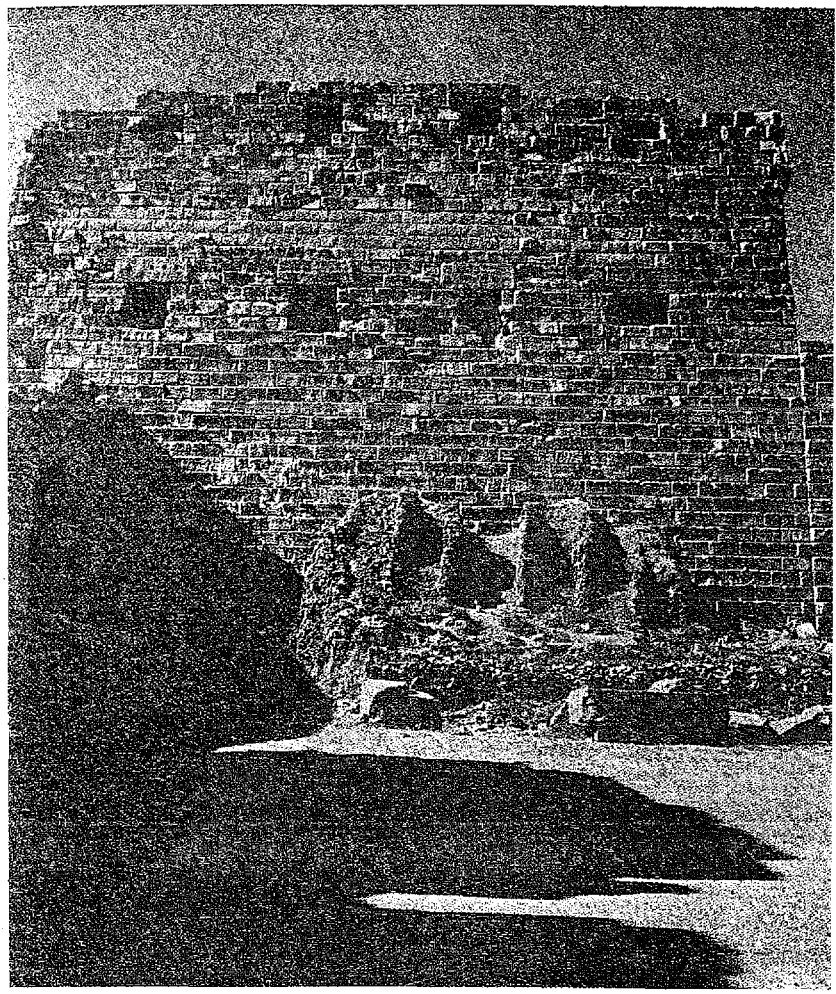




246. Coloso sedente de Ramsés II: Detalle. Al lado de la gigantesca pierna del monarca se halla la figura en miniatura de la reina. Los egipcios nunca temieron la yuxtaposición de representaciones en diferentes escalas.

La idea total del Pilono VIII de Hatsepsut, así como su audaz emplazamiento, hace difícil creer que pudiera proceder de otra mano que la de Senmut. Este pilono manifiesta la misma amplia generosidad de tratamiento que las anchas terrazas de Deir el-Bahari. También trae a la mente la novedosa colocación de la serie de estatuas colosales de Osiris a lo largo del frente de la terraza superior del templo funerario de Hatsepsut; en la generación de Tutmosis I se colocaban contra las paredes interiores.

El camino sagrado conducía desde este pilono hasta el santuario de Mut, la diosa con cabeza de leona. Hatsepsut bordeó el largo camino procesional hasta este santuario, el más meridional de Karnak, con una impresionante avenida de esfinges: 330 metros detrás del muro de cerramiento erigido mucho después por



247. El Pilono I, nunca acabado: La mayor parte de este pilono, en la entrada principal al gran templo de Amón en Karnak, fue construida bajo los tolomeos. Partes de las rampas de toscos ladrillos utilizadas para su construcción todavía permanecen in situ.

Horemheb. En la época de Hatsepsut el templo de Mut no existía en su forma actual, «pero pudo haber aquí un santuario incluso en el Imperio Medio, si no antes» *(ibíd.,* pág. 162). El constructor principal del templo actual fue Amenofis III. fig. 31 Centenares de estatuas de granito sedentes de la diosa Sekhmet-Mut fueron colocadas en los patios del templo; muchas se hallan hoy ampliamente distribuidas en museos.

La parte sur de la zona del templo está todavía rodeada por un lago sagrado en una irregular curva en U, forma inusual para una extensión de agua en Egipto. El templo de Mut, como la mayoría de los santuarios de esta parte del complejo de Karnak, está relacionado con la fertilidad. Tal vez no sea demasiado aventurado comparar la forma inusual del lago sagrado con la forma de la matriz, ya que recientemente se ha demostrado que el tocado o peluca de Hator (también diosa de la fertilidad) «reproduce exactamente el símbolo *uterus* de la diosa babilónica Ninhursag» (Barb, 1953, pág. 199).

Una capilla almacén con un deambulatorio y un templo construido por Hatsepsut están dedicados a Amón-Min-Kamutef (el «Toro de su Madre») y se llega a ellos por un corto acceso que se bifurca en ángulo recto desde la avenida de esfinges justo delante del templo de Mut. Este lugar de parada de la barca sagrada llamó la atención de Borchardt, quien trató de relacionarlo con el jubileo de Hatsepsut (1938, págs. 79-83). En 1954, Ricke hizo un profundo estudio de los cimientos tanto del templo como de la capilla almacén. En un fragmento de un relieve descubrió a quién estaba dedicado el templo. Era «Amón-Ra-Kamutef, el de las altas plumas, quien se enorgullece de su belleza, es decir, sus poderes de procreación» (pág. 4, fig. 1). Esta relación de Amón con Min, el dios de la fertilidad, estableció una especie de encuadramiento previo para el templo de Amenofis en Luxor.

Los pilonos del eje sur

Dentro de los recintos del templo de Karnak, el eje sur fue acentuado por cuatro pilonos (ahora VII-X) a los que Mariette llamó «pilonos del sur». De algún modo dan la impresión de una serie de arcos triunfales. Entre ellos se extienden tres patios, con pequeñas capillas, para los jubileos de los reinados, insertas en sus paredes orientales. El camino procesional conducía a través de estos cuatro pilonos y continuaba más de doscientos setenta y cinco metros a lo largo de la avenida de esfinges hasta el santuario de Mut. Otros caminos sagrados se bifurcaban hacia otros santuarios. Dentro del gran patio interior del Pilono VIII, Tutmosis III erigió un nuevo pilono (ahora el VII). Relieves convencionales de la matanza de los enemigos derrotados cubrían las paredes, y aunque éste es el peor conservado de los pilonos, dichos relieves son todavía visibles.

Una escena del faraón en dimensiones heroicas, descargando su maza sobre un grupo de prisioneros que representan los territorios conquistados y asiendo con una mano por los cabellos a un grupo de enemigos, se repite en la fachada de cada pilono. Desde el punto de vista iconográfico, esta escena se remonta a los comienzos de la I Dinastía, a la paleta de Narmer. Formaba el telón de fondo de un rito de purificación realizado en el momento de entrar en el recinto sagrado.

Con ocasión de su trigésimo aniversario, Tutmosis III construyó en la pared oriental una capilla almacén con un deambulatorio y una salida al vecino lago sagrado (Borchardt, 1938, págs. 90-93). Detrás está el edificio de Taharqa —no estudiado ni excavado realmente—, cuyas paredes se hallan cubiertas con relieves relacionados con el culto de Osiris.

Antes de que los dos últimos pilonos (ahora IX y X) adquirieran su forma definitiva bajo los ramésidas, Amenofis II edificó un notable templo jubilar con catorce pilares en su parte delantera. Detrás había una sala hipóstila.

Estos cuatro pilonos del sur, así como los edificios, sufrieron muchas restauraciones y usurpaciones por parte de soberanos posteriores.

La sala hipóstila como lugar de paso

La gran sala hipóstila de Ramsés II

Después de las pirámides, la estructura más espectacular de la historia egipcia es la gran sala hipóstila de Karnak. Posee todo el gigantismo que caracterizó la época de los ramésidas, y de entre todas las estructuras erigidas por Ramsés II, el extraordinario constructor, supone la contribución más importante a la historia de la arquitectura. Ningún edificio anterior puede compararse en dimensiones a las dadas aquí a un espacio cubierto, y ningún edificio posterior intentó siquiera acercarse a una escala tan colosal. El área es de más de 5.000 m^2: 103 metros de longitud por 52 metros de anchura. Suele decirse que era lo bastante grande como para alojar completa la catedral de Notre Dame de París.

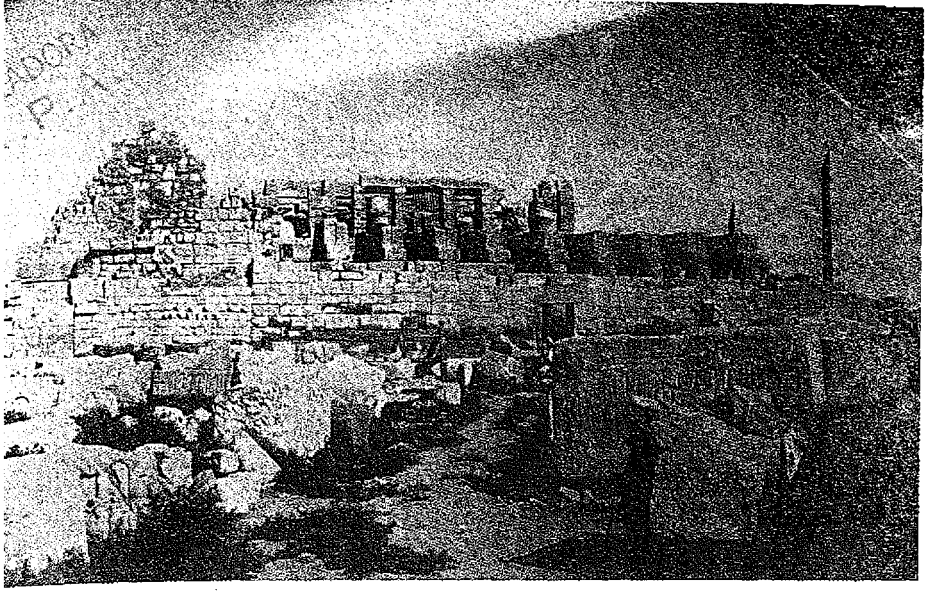
Estas enormes dimensiones dan origen a varias preguntas: ¿Cuál era la finalidad de esta sala? ¿Qué ocurría efectivamente en ella? ¿Cuáles fueron las soluciones estructurales dadas a los problemas planteados? Finalmente, ¿cómo fueron expresadas en términos espaciales?

La sala hipóstila continúa el eje principal este-oeste y le da su mayor acento. Sin ella, el eje no tendría su monumentalidad plástica.

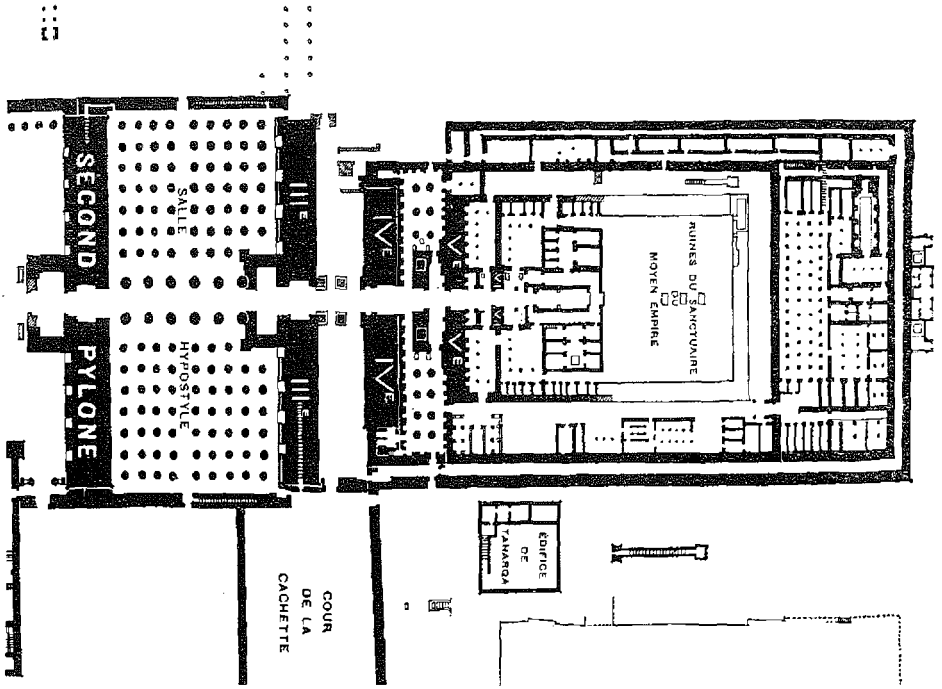
La pared oriental de la sala hipóstila está formada por el gran pilono de Amenofis III (Pilono III), en cuyos cimientos fueron sepultados los fragmentos de otros muchos monumentos. La pared occidental es el Pilono II, erigido bajo Ramsés I. A derecha e izquierda del antaño pequeño vestíbulo de entrada había dos estatuas colosales de Ramsés II. Los fragmentos de una de ellas se conservan aún en pie. Un vestíbulo similar sobresalía desde el pilono de Amenofis III, el cual guardaba el acceso al templo. Esto dio lugar a algunas irregularidades en el plano.

A través de la enorme puerta posterior del Pilono II (cuya altura es comparable a la del Arco del Triunfo de París), una abrumadora masa de luz podía penetrar en el interior, en marcado contraste con el resto del edificio y con el propósito de la oscura sala de columnas. Esta gigantesca abertura se hizo por primera vez bajo los tolomeos.

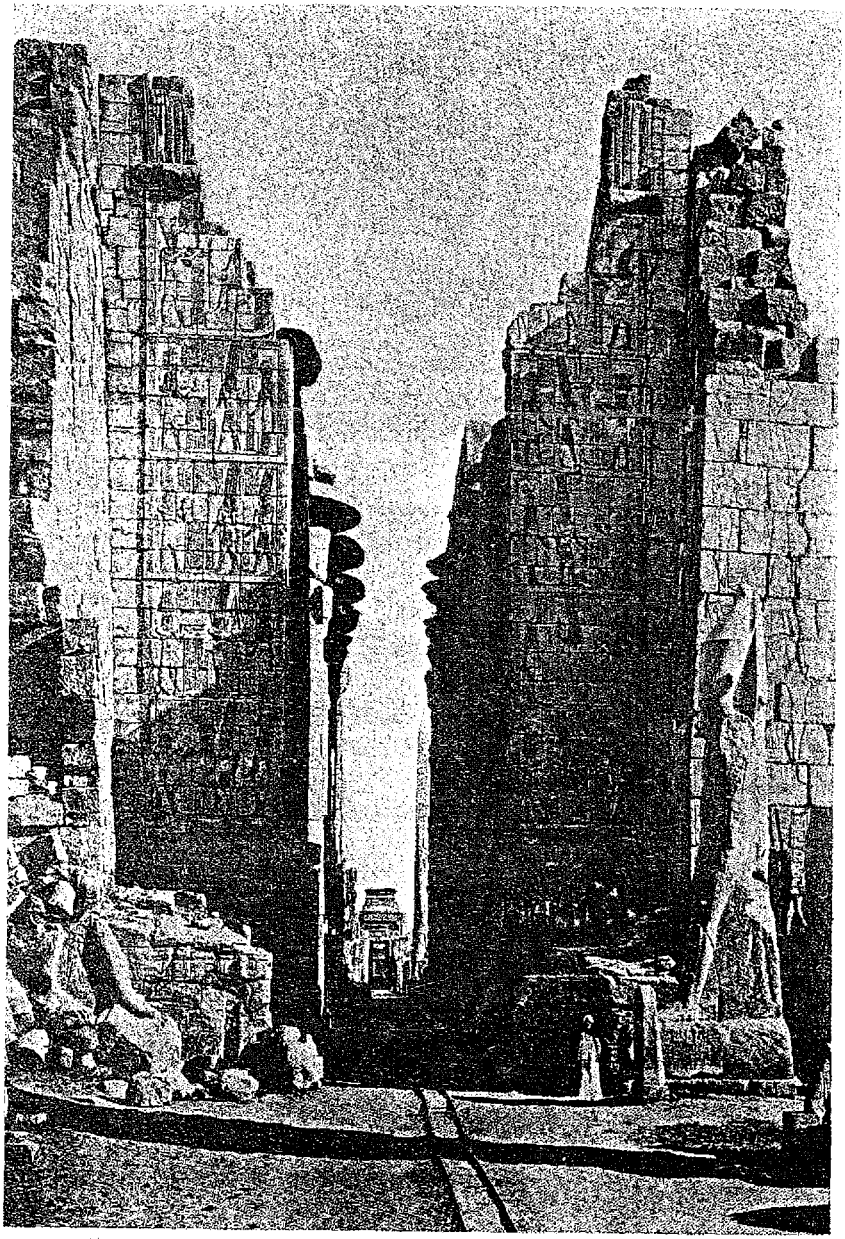
El pasillo central de la sala hipóstila, de veintitrés metros de altura, acentúa la importancia del eje este-oeste. Este pasillo está formado por seis columnas a cada lado, cuyo diámetro es el mismo de la columna de Trajano de Roma (tres metros



248. La gran sala hipóstila desde el sur: De izquierda a derecha, restos del Pilono II comenzado por Ramsés I; pared exterior, columnas de las naves baja y alta y aberturas de las ventanas enrejadas. A la derecha, algunos restos del Pilono III, construido por Amenofis III, y, finalmente, los obeliscos de Hatsepsut y de Tutmosis I.



249. Plano de la gran sala hipóstila: 103 × 52 metros, con 134 columnas dispuestas en 16 filas. A la izquierda, el gran patio con columnas construido por los soberanos de la XX Dinastía. A la derecha, los edificios de los tutmósidas. Tomado de Chevrier.



250. Entrada a la gran sala hipóstila a través del Pilono II, comenzado por Ramsés I. Delante se alzan una de las estatuas de Ramsés II y las paredes bajas de los pabellones que guardaban la entrada. Dentro está la nave central. Tomado de Jéquier.

y medio). Es mucho más ancho que el formado por cualquiera de las siete columnatas a cada lado. Su carácter dominante resulta acentuado por el hecho de que el espacio entre él y las columnatas más bajas a cada lado es mayor que los espacios entre cualquiera de éstas.

Este camino procesional este-oeste entre altas columnas era el que seguía el rey en su paso hasta el templo de Luxor, llevando un incensario en la mano, como se ve en los relieves. Los grabados en las losas del techo a lo largo del camino reproducen constantemente a la protectora del faraón: la diosa Nekbet, un buitre con las alas desplegadas.

El término «hipóstila» aparece en Diodoro, del siglo I a. C. (Legrain, 1929, página 159), para designar una sala con el techo apoyado sobre columnas. En esta sala de Ramsés II, densamente poblada de columnas, la palabra adquiere un significado muy especial. Las 122 columnas más bajas, que tienen unos dos metros de diámetro, parecen romper el espacio, ya que las distancias entre ellas son más pequeñas que su diámetro. La bella fotografía de G.E. Kidder Smith, a la altura del ojo, de la sala hipóstila de Medinet Habu, pone de manifiesto la sensación de fragmentación del espacio que experimenta el espectador actual. En Karnak, las densas filas de columnas más bajas no están simétricamente dispuestas en relación con las columnas más altas, y esto hace que el espacio parezca incluso más lleno. Esto no ocurre por casualidad sino que fue intencionado.

A pesar de lo apretado del espacio, la idea arquitectónica de alzado y planta está claramente expresada. Aunque hay una estrecha nave central en el sentido norte-sur, el principio de la edificación consistió en emplear todos los medios para acentuar el dominio de la columnata este-oeste como lugar de paso; por consiguiente no hay altares en esta gigantesca sala. No es un lugar para que los fieles se congreguen, ni es un lugar de descanso; se trata simplemente de un lugar de paso concebido monumentalmente. En su semioscuridad se llevaban a cabo funciones rituales y se expresaban oráculos. Las manifestaciones de las deidades se recibían aquí: por ejemplo, la designación del sucesor del faraón en los casos de duda. La más famosa de tales designaciones fue la de Tutmosis III, cuando la barca sagrada que llevaba la imagen de Amón se detuvo en su viaje ante el joven príncipe. Este hecho, que ocurrió efectivamente en la pequeña sala hipóstila de Tutmosis I, indica la finalidad de tales salas.

La sala hipóstila de Luxor

La idea básica de la sala hipóstila como lugar de paso y ritual había cristalizado aún más rotundamente en la anterior sala hipóstila del templo de Amón en Luxor, el cual fue el primer ejemplo de la forma definitiva de los grandes templos del Imperio Nuevo.

El pacífico reinado de Amenofis III permitió que la mayor parte del templo fuera completada de una vez. No tenemos ninguna información segura sobre la disposición de los antiguos templos del Imperio Medio en este lugar. Más tarde, Ramsés II añadió un patio con columnas y un pilono en ligero ángulo con el eje norte-sur del templo, lo cual no mejoró el conjunto.

El ritmo arquitectónico de Luxor fluye con una regularidad desacostumbrada. La arquitectura es enérgica y sin embargo, para Egipto, muy delicada, como los contornos de los relieves funerarios de altos funcionarios reales en la orilla opuesta del Nilo. La pura frescura de las formas que se advierte en la obra de Hatsepsut fue reproducida en esta obra maestra del bisnieto de Tutmosis III.

Al santuario más interior con sus capillas laterales solamente se puede entrar a través de una estrecha puerta. Está deliberadamente aislado, como el altar de

251. Bases de columnas imitando capullos de papiro en Medinet Habu: Estas columnas cubiertas de relieves en una nave lateral de la sala hipóstila están montadas en tambores de piedra como los del complejo funerario de Zoser (ver fig. 161). Pero ahora los tambores alcanzan dimensiones colosales (hasta 4 m de diámetro). Los espacios entre ellos son tan estrechos que las columnas parecen formar a veces una sólida masa.

ofrendas de las pirámides. Enfrente de la puerta hay un magnífico vestíbulo con columnas, cuyo lado largo da a un gran patio interior. Apenas puede imaginarse una entrada *más impresionante* a un santuario que esta sala de lados abiertos con sus cuatro columnatas de ocho columnas papiriformes. Estas son tan ligeras que su concentración no resulta agobiante en absoluto, pareciéndose más a las columnas papiriformes del templo funerario Sahura, de la V Dinastía, que a las columnas colosales de la sala hipóstila de Karnak, la cual fue edificada solamente cincuenta años después. Es difícil comprender por qué esta sala hipóstila de lados abiertos no estableció una nueva tradición.

El espacioso patio interior, rodeado por un pórtico de dobles columnas, se cierra dramáticamente hacia una estrecha sala hipóstila que consta de un pasillo central con siete columnas, de dieciséis metros de altura, a cada lado. Esta sala hipóstila está concebida como un pasillo estrecho, en forma de tubo. Su anchura total es solamente de unos dieciocho metros. La imagen de Amón era trasladada entre estas columnatas en su camino desde Karnak a Luxor en el «Gran festival de Opet».

Chevrier, que tanto hizo por la investigación y por la conservación de la sala hipóstila de Karnak, creía, según Vandier, que la doble fila de columnas de la nave central de la sala hipóstila de Ramsés II en Karnak se remonta de hecho a Amenofis III y fue construida al mismo tiempo que la sala hipóstila de Luxor (1955, II, pág. 912), y que también tenía originalmente siete columnas a cada lado. En efecto, Chevrier pretendía haber hallado vestigios del último par de columnas debajo del Pilono II ramésida. Esta opinión no ha sido generalmente aceptada (*ibíd.*, pág. 924), pero la sugerencia es particularmente interesante, ya que corrobora la idea original de la sala hipóstila como lugar de paso, forma todavía conservada en la de Ramsés II en Karnak, aunque a primera vista la multiplicación de las columnas a cada lado conduzca a confusión.

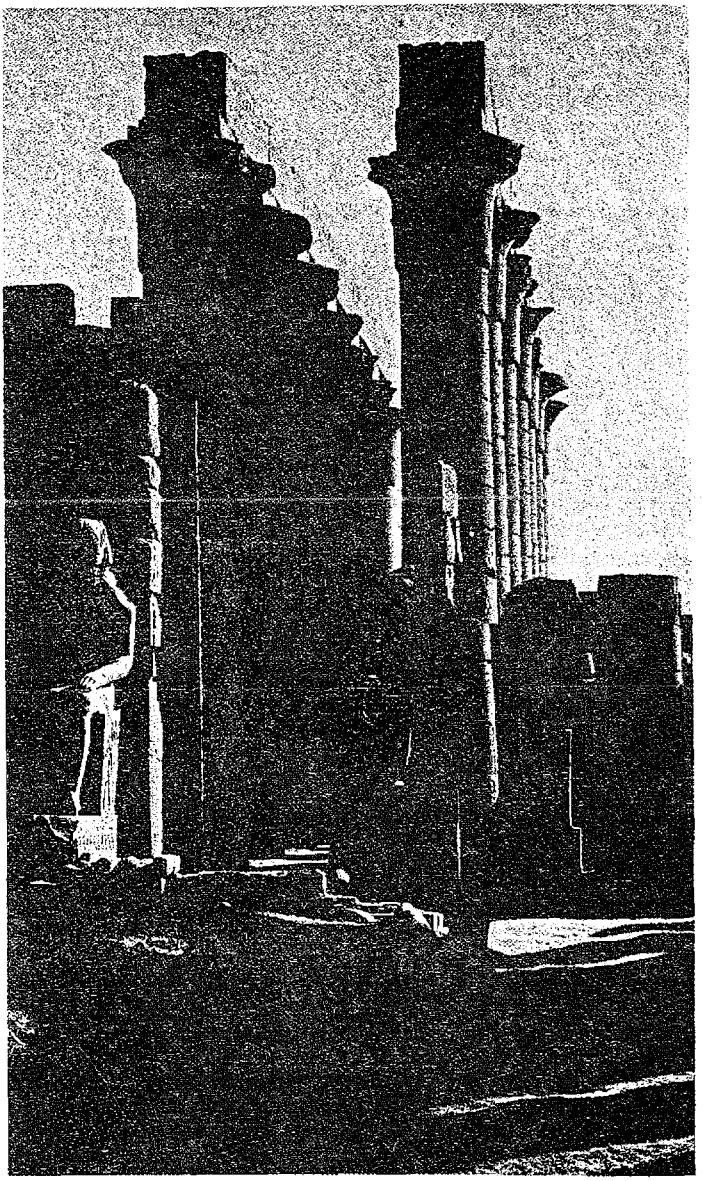
La reducción de la luz

Una de las diferencias principales entre la enorme sala hipóstila de Karnak y la basílica paleocristiana reside en el tratamiento de la luz.

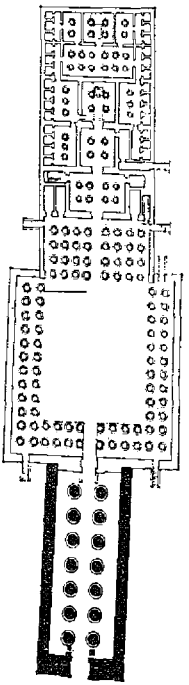
Los egipcios amaban la semioscuridad, no solamente en sus templos sino también en sus casas. Les gustaba colocar las ventanas lo más altas posible, como se ve en un conocido modelo funerario de una casa de los tiempos predinásticos.

Tenemos una información más precisa sobre el modo de vida de los egipcios en el Imperio Nuevo. En una de las casas de Tell el-Amarna, «la decoración de la Sala Norte estaba concentrada en la parte superior de las paredes, donde a intervalos había pequeñas ventanas enrejadas en los muros exteriores» (Lloyd, 1933, página 5).

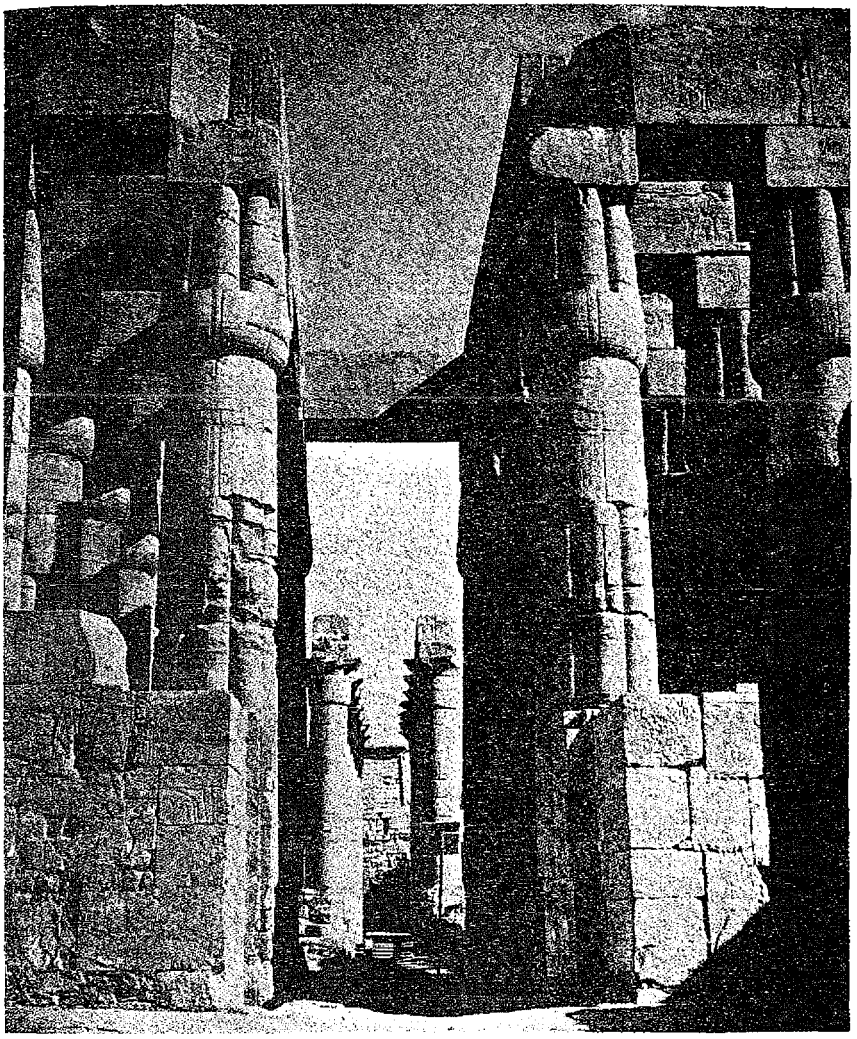
Hay algunos restos, escasos, del palacio de Amenofis III, de la generación anterior, en Malkata, Tebas. Smith ofrece una viva descripción del palacio del cons-



252. Sala hipóstila del templo de Luxor. Vista de la larga sala hipóstila de Amenofis III, originalmente planificada para tres naves de columnas, pero acabada apresuradamente, después de la muerte de Amenofis III, por su nieto Tutankamen, con una sola nave bordeada por siete columnas papiriformes.

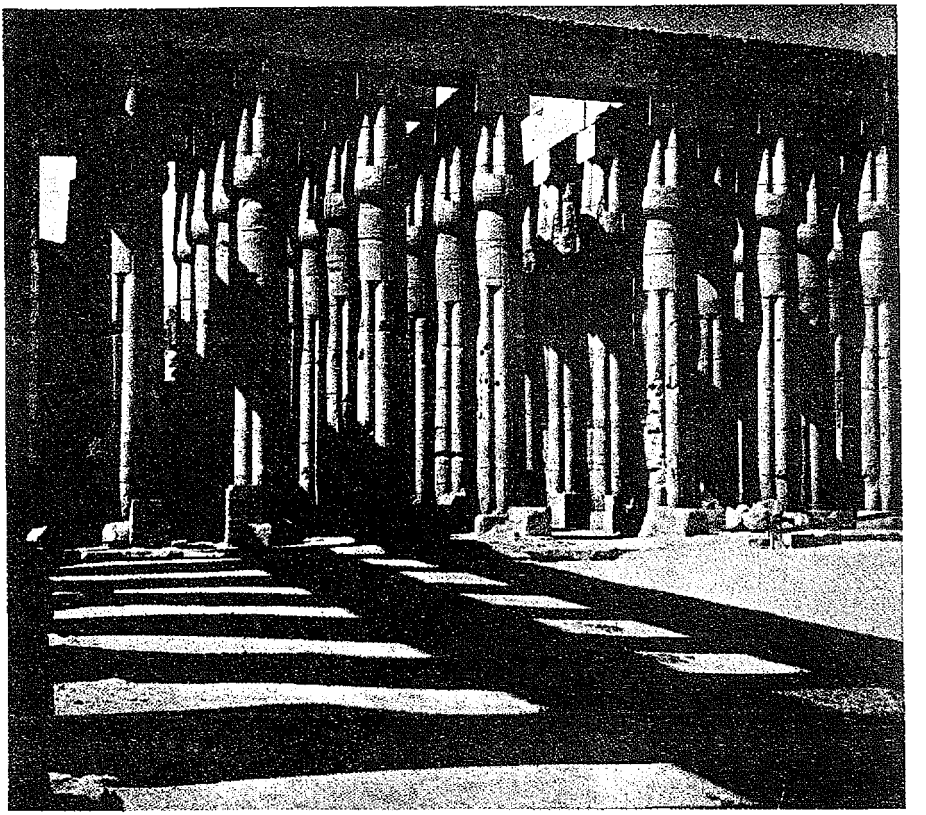


253. Plano del templo de Luxor, de Amenofis III (1400-1362 a.C.): Longitud, 189 metros aproximadamente. Todo el conjunto presenta un plan unificado, desde la sala hipóstila, estrecha y alargada, a través del patio interior con doble fila de columnas, hasta los santuarios protegidos por una sala hipóstila abierta al frente con cuatro filas de ocho columnas cada una. El principal santuario de Amón con sus muchas cámaras laterales se halla en el extremo norte del templo. Tomado de Schwaller de Lubicz.



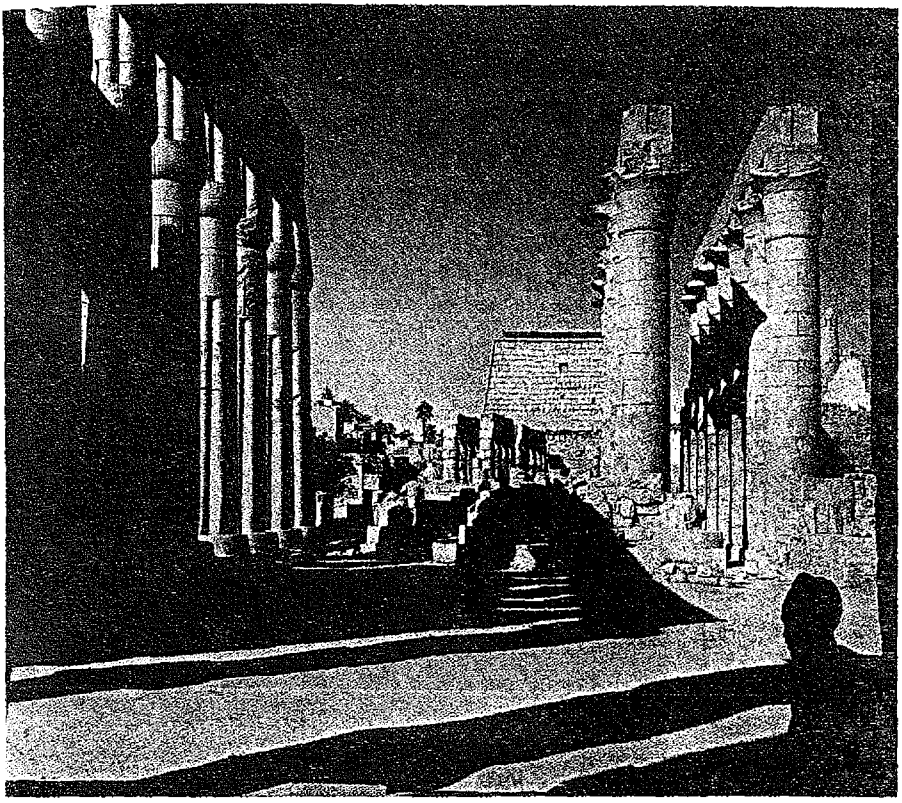
254. Templo de Luxor: Vista de la sala hipóstila desde el patio interior.

tructor del templo de Luxor (1958, págs, 159-172). «Las habitaciones privadas del rey consistían en una larga sala con columnas con un salón del trono, a espaldas de la cual se abría un cuarto de baño y una antecámara que daba al dormitorio del rey. A cada lado de la sala había cuatro series de habitaciones para las damas principales del harén» (pág. 168). En el salón del trono con columnas, las ventanas con sus rejas de piedra y estrechas aberturas para la luz estaban colocadas cerca del techo.



255. Templo de Luxor, patio interior de Amenofis III: 44 × 51 metros aproximadamente, con columnas de granito figurando haces de papiro, muy bien conservadas.

El mismo sistema de iluminación, aunque en grandes dimensiones, fue utilizado en la sala hipóstila ramésida de Karnak, la cual tiene aberturas para la luz semejantes a las utilizadas por Tutmosis III en su sala de festivales, aunque enormemente mayores. Ocho aberturas abarcan la longitud total de la diferencia de alturas entre las columnas bajas y el arquitrabe que soporta el techo del pasillo central. Estas ventanas habrían podido dar paso a un torrente de luz, pero fueron rellenadas con las típicas rejas de piedra perforada características de Egipto. Esta construcción ha sido frecuentemente comparada con la basílica cristiana. Sin embargo, en esta última la luz podía entrar sin obstáculos en la nave. En Karnak, las rejas de las ventanas actuaban como tupidas cortinas.



256. Templo de Luxor: La sala hipóstila con el pilono de Ramsés II al fondo.

El deseo de semioscuridad es todavía más evidente en la luz procedente del techo de Karnak, a veinticuatro metros de altura. Pequeñas aberturas (23 × 18 cm aproximadamente) fueron taladradas en las gruesas planchas del techo (de más de 80 cm de grosor) de manera que la luz penetraba como por el ojo de una cerradura. «Así la luz solamente podía entrar en finos rayos a través de estas pequeñas aberturas» (Legrain, 1929, pág. 179). En las láminas en color se muestra una de estas ventanas sin la reja de piedra perforada y también una de las planchas del techo, perforada y que estuvo pintada de azul.

Ritual y viaje

La idea de viaje, que todo lo impregna, está más claramente expresada por los grandes relieves de procesiones rituales dentro de las salas hipóstilas: Luxor, de Amenofis III, del siglo XIV a. C.; Karnak, de Ramsés II, del siglo XIII a. C., y Medinet Habu (oeste de Tebas), de Ramsés III, de comienzos del siglo XII a. C.

Al dios le eran ofrecidos muchos sacrificios en su vagar. Al mismo tiempo él realizaba importantes actos de Estado por medio de oráculos, tales como la elección de Tutmosis III como faraón. «Cuando el dios era sacado... llevado en una barca a hombros de los sacerdotes, se le hacían peticiones o se le presentaban candidatos a diferentes puestos. El dios aceptaba y rechazaba. Probablemente avanzando hacia el peticionario o apartándose de él manifestaba el dios su voluntad» (Piankoff, 1957, págs. 18-19).

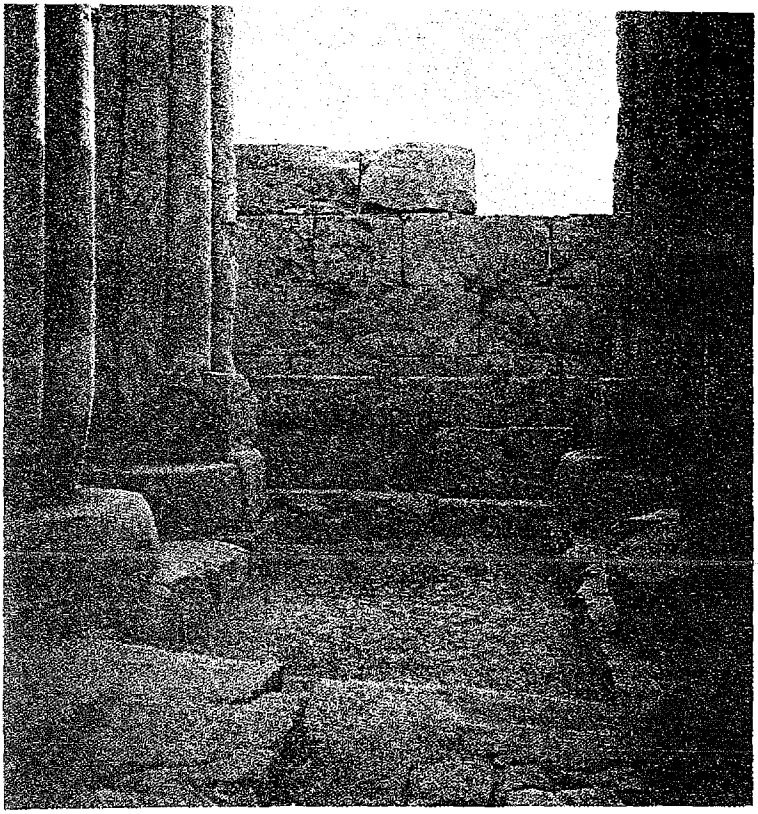
Los enormes relieves de las paredes de estos templos reales revelan la gran importancia concedida a las ceremonias rituales realizadas durante el viaje del dios. Dichos relieves reproducen prácticamente todos los pasos y todas las acciones del faraón cuando éste, hijo y representante del dios, acompañaba la barca sagrada que contenía su imagen oculta dentro de la naos.

Debemos a estos relieves la mayor parte de nuestros conocimientos del ritual: el camino por tierra y agua de un santuario a otro, la situación de las distintas paradas procesionales y los sacrificios realizados. Las ceremonias sacrificiales tenían la máxima importancia. Pero esto no era todo: «Los antiguos escritores nos han hablado de reyes y sacerdotes que llevaban máscaras de animales durante las ceremonias religiosas. El bajorrelieve de Ramsés II en la pared sur de la sala hipóstila es la mejor ilustración de estos escritos» (Legrain, 1916, pág. 41). En este relieve Ramsés II se halla representado andando hacia atrás mientras mira hacia la barca sagrada. En su mano izquierda sujeta un triple incensario y con la derecha arroja granos de incienso en el recipiente ritual. La trayectoria de los granos está señalada por una curva de puntos.

Los sacerdotes con cabeza de halcón «que llevan la barca desempeñan el papel del gran o pequeño Paout» *(ibíd.);* en filas de cinco, marcando el paso hacia atrás y hacia delante, forman un «consejo al que le son comunicadas las decisiones de Amón» (pág. 42).

Las columnas de la sala hipóstila están densamente agrupadas, y el espacio entre ellas y la pared es tan estrecho que la cámara fotográfica no puede captar los grandes relieves en una sola toma. En los volúmenes, grandes y poco manejables, de la *Description de l'Égypte,* publicados por primera vez por orden de Napoleón I en los comienzos del siglo XIX, el dibujante representó las escenas completas. En una de ellas los sacerdotes no llevan cabezas de animales. Llevan la cabeza afeitada. A pesar de ciertas inexactitudes, el carácter de la procesión está bien expresado: las varas de madera sobre los hombros de los sacerdotes soportan la barca sagrada. Sobre ella pueden verse la capilla del dios, las plumas divinas y, a proa y a popa, cabezas de carneros, el símbolo de Amón.

A lo largo de las paredes de la sala hipóstila del templo de Luxor está representado el «Magno festival de Opet», el cual ha sido detalladamente descrito por W. Wolf (1931). Las distintas etapas del viaje de Amón desde su cella de Karnak



257. Templo de Luxor, el santuario más interior de Amón: Aquí descansaba la imagen de Amón después de su viaje desde Karnak con ocasión del «Magno festival de Opet». La estatua del dios estaba en tiempos colocada en la pared detrás del altar.

hasta la de Luxor y vuelta son mostradas minuciosamente a lo largo de un friso de unos 46 metros: la ofrenda del rey ante las barcas en el templo de Amón en Karnak; las barcas llevadas desde el templo de Karnak hasta el Nilo a hombros de los sacerdotes; el viaje de las barcas por el Nilo hasta Luxor, con acompañamiento procesional por tierra; la procesión de las barcas desde el desembarcadero hasta el templo de Amón en Luxor; colocación de las barcas en el templo de Luxor y ofrendas sacrificiales; el viaje de regreso y, finalmente, el acto de sacrificio del rey ante las barcas en el templo de Amón en Karnak (pág. 38).

La fecha de estos relieves no está establecida definitivamente. Se parecen al estilo amarniense de Akenatón (Amenofis IV) y se atribuyen a Tutankamen (págs. 1-3).

El «Magno festival de Opet», el cual consistía principalmente en este viaje procesional y los sacrificios relacionados con él, era fundamentalmente un rito de la fertilidad. Esto explica la fusión que hizo que algunas veces Amón casi no se distinguiera de Min, el dios de la fertilidad, como éste es representado de forma itifálica ante Alejandro Magno en el templo de Luxor. Lo que realmente ocurría en el «Magno festival de Opet» y los actos relacionados con lo que se halla representado en los relieves escapan a nuestra total comprensión.

El dios Amón, «el invisible», viajaba en su magnífica barca desde Karnak para visitar su «harén del sur» en el templo de Luxor. En Tebas las deidades soberanas eran una trinidad compuesta por Amón, su consorte Mut y su hijo Jonsu. Luxor era el lugar de residencia de su otra consorte, Amaunet; pero él viajaba con Mut y Jonsu, quienes ocupaban otras dos barcas para las cuales había dispuestas dos capillas en Luxor con acceso directo al gran vestíbulo y sus cuádruples columnatas de ligeras columnas papiriformes.

«Amón tenía también varias concubinas humanas encabezadas por la concubina principal que, por lo general, parece que era la mujer del Sumo Sacerdote, o bien su hermana o hija. Probablemente tenían su residencia en Luxor, en el Harén Sur de Amón. Es muy posible que estas concubinas no fueran otras que las sacerdotisas-músicas, las Cantoras de Amón» (Piankoff, 1957, pág. 18).

Posiblemente los egipcios, con su notable comprensión del simbolismo, no tomaran estas abstrusas ideas demasiado al pie de la letra. En un sentido amplio, estas ideas tenían su origen en la vaguedad y en el polimorfismo que, para los egipcios, iban unidos a la idea de divinidad.

Las procesiones rituales en Egipto, Mesopotamia y Grecia

Solamente hemos descrito los templos mesopotámicos en sus etapas más primitivas, en relación con los comienzos de la arquitectura. Sus últimas etapas en Babilonia, Asiria, y nuevamente Babilonia, tienen menos significación.

De cualquier modo, existen similitudes en la estructura religiosa de Egipto y Mesopotamia que exigen alguna rápida referencia.

Mesopotamia promulgó las primeras colecciones de leyes, las cuales fueron grabadas con términos jurídicos precisamente definidos en estelas y tabletas de arcilla.

Sin embargo, no hay escrituras sagradas en Egipto o Mesopotamia —ni, dicho sea de paso, en Grecia— a partir de las cuales se desarrollaran claramente las creencias religiosas. Ninguno de estos pueblos poseía un dogma respaldado legalmente. Todos aspiraban al contacto directo con la deidad. Pero ese contacto estaba limitado a unos cuantos privilegiados y en consecuencia —como hemos demostrado— condujo a que la masa de fieles quedara separada de la presencia de la deidad. Sólo cuando la estatua de ésta viajaba de un templo a otro podía el pueblo tener una visión momentánea de la naos en la cual iba encerrada la estatua sagrada.

En Egipto los caminos sagrados conducían desde el templo imperial de Karnak, con detención en varios santuarios, hasta el templo de Luxor, y a través del Nilo hasta la necrópolis de Tebas, donde la reina Hatsepsut había dedicado su templo funerario al dios Amón. La estatua de la deidad de Karnak viajaba hasta la terraza más alta de su templo funerario, al interior de la capilla labrada profundamente en la pared rocosa.

Los viajes sagrados mesopotámicos eran preparados con igual minuciosidad, aunque diferentemente expresados. Las monumentales escaleras de los zigurats de

hacia el año 2000 a. C. eran utilizadas para las procesiones de los sacerdotes, las cuales recorrían solemnemente los tres tramos de la escalera.

El camino procesional más grandioso fue creado cuando la existencia de Mesopotamia se acercaba al final, en el siglo VI a. C. Durante sus más de cuarenta años de reinado el rey Nabucodonosor construyó un camino procesional en Babilonia para el dios Marduk, más espléndido que cualquier otro anterior o posterior. Dicho camino constituía el telón de fondo para el más grande acontecimiento anual, el festival de Año Nuevo, el cual celebraba el renacer de la naturaleza: un ritual de la fertilidad en el que el rey representaba un papel importante. Del mismo modo que en el «Magno festival de Opet» egipcio, en que la estatua de Amón viajaba hasta el templo de Luxor en una procesión encabezada por el faraón, la estatua babilónica de la deidad viajaba en su carro espléndidamente decorado y en su barca ritual desde la Torre de Babel (Etemenanki) y el templo oficial de Marduk (Esagila) por una larga avenida hasta otro templo (Akitu). La extraordinaria procesión era dirigida en Tebas por el faraón y en Babilonia por el rey. La finalidad de los dos festivales era también semejante: el cumplimiento de ritos de fertilidad.

La separación de las masas de fieles de la divinidad se produjo en ambos países. En Mesopotamia la residencia de la deidad y la zona destinada al pueblo nunca se acomodaban en el mismo espacio. En Egipto la separación era aún más radical.

Ni siquiera Grecia rompió con el antiguo significado ritual del viaje sagrado ni con la exclusión del público del templo. Aquí las imágenes divinas no viajaban de un templo a otro. El viaje lo hacía el pueblo. En la magnífica tridimensionalidad del paisaje délfico, la naturaleza estaba mucho más íntimamente incorporada en la procesión, que se desplazaba desde los santuarios más antiguos hasta la sagrada fuente Castalia y ladera arriba hasta el templo de Apolo.

En el marco urbano de Atenas el gran festival de las Panateneas se celebraba cada cuatro años; tenía lugar en agosto y estaba probablemente relacionado con las fiestas de la cosecha. El camino procesional de este festival, el más grande de los festivales atenienses, estaba lleno de significado ritual. Comenzaba en la puerta del Dipylón y seguía su camino a lo largo del paseo de Hermes y diagonalmente a través del ágora, pasando varios santuarios antes de llegar a la Acrópolis. La procesión, que portaba una nueva vestimenta para la estatua de Atenea, estaba dirigida por el edil principal de la ciudad y acompañada por otros miembros del consejo, sacerdotes y jinetes. Su importancia se pone de manifiesto por la posición destacada que ocupan los relieves que la reproducen en el friso que rodea el Partenón. En contraste con lo que sucedía en Egipto, la estatua de la diosa Atenea en el Partenón alcanzó dimensiones gigantescas. Durante el festival la gran puerta del templo era abierta de par en par y la diosa podía ser contemplada por todos. Pero el pueblo, aun aquí, permanecía fuera del santuario.

El hecho de que el pueblo pudiera desplazarse alrededor del templo, pero nunca entrar en él, es común a Mesopotamia, Egipto y Grecia. Esta circunstancia es una de las razones por las cuales, a través de las tres civilizaciones arcaicas, las relaciones de los volúmenes en el espacio son una característica de la primera concepción del espacio arquitectónico.

Décima parte:
Hatsepsut y el
patio interior cósmico

El templo con terrazas de la reina Hatsepsut (1490-1469? a. C.) fue construido en el anfiteatro rocoso de Deir el-Bahari, en la orilla opuesta del Nilo del templo de Karnak. Este esplendoroso punto culminante hacia una serie de tumbas rupestres da origen a una rara unidad de arquitectura y escultura y a una nueva libertad de la articulación del espacio que permanecería insuperada en Egipto.

El templo funerario de la reina Hatsepsut no era una tumba. Su padre, Tutmosis I, había roto con la antigua costumbre que exigía que todos los faraones fueran enterrados debajo de una pirámide o que por lo menos se conservara la secuencia tripartita de templo del valle, calzada ascendente y templo funerario. Tutmosis I eligió para emplazar su propio monumento funerario un valle del desierto, lleno de peñas, al otro lado de la montaña de Deir el-Bahari: el Valle de los Reyes. La montaña que forma el fondo del valle se afila en forma de pirámide. Aquí continuaron siendo enterrados los sucesivos faraones del Imperio Nuevo hasta la XX Dinastía, en cámaras excavadas cada vez más profundamente en la ladera. Estas tumbas estaban a veces tan hábilmente disimuladas que, cuando Howard Cartet descubrió la tumba de Tutankamen, todos los tesoros estaban todavía intactos. Carter y lord Carnarvon también descubrieron la tumba de Hatsepsut, en la cual la reina había colocado además un nuevo sarcófago para el féretro de su padre. Cuando se halló, esta tumba había sido ya saqueada y estaba vacía de todo lo demás.

258. El valle de los Reyes: Esta oculta garganta rocosa, coronada por un pico en forma de pirámide, fue el lugar de enterramiento de los soberanos del Imperio Nuevo.

Las tumbas rupestres desde el Imperio Antiguo

El templo funerario de la reina Hatsepsut marcó el final de la evolución de la tumba rupestre, que había seguido un proceso de casi mil años. El modelo básico eran las tumbas rupestres utilizadas por los nomarcas, gobernadores provinciales del Alto Egipto desde el Imperio Antiguo hasta la XII Dinastía.

Al principio los nomarcas eran simplemente funcionarios que gobernaban las provincias como delegados del rey. Con la debilitación del poder centralizado y el declive ocasional del aura mágica que rodeaba al faraón, los nomarcas se convirtieron en señores feudales con creciente independencia y dejaron sus tumbas cavadas en la roca como orgullosa demostración de su alta posición.

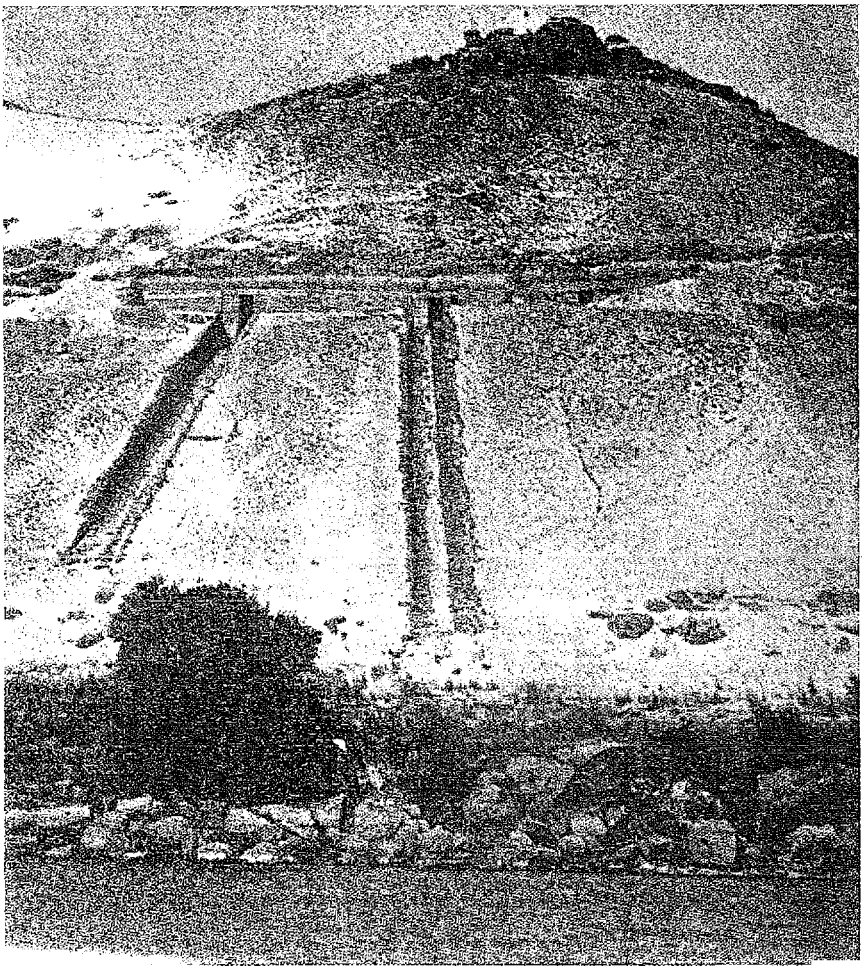
Las tumbas de los nomarcas empiezan a edificarse en la IV Dinastía. Un gobernador de la decimocuarta provincia, llamado Kenouke, obtuvo del rey Micerino, algo antes de 2473 a. C., «autorización para ser enterrado en el distrito en el cual había nacido» (Vandier, 1954, II, pág. 295): en otras palabras, muy lejos de Menfis y de las pirámides a cuya sombra y bajo cuya protección habían permanecido hasta entonces todas las mastabas de los nobles. Esto marcó el comienzo de su independencia. Hacia el final del Imperio Antiguo, tanto la emancipación de aquéllos como la destrucción del poder real se desarrollaron rápidamente.

Ninguna de las tumbas reales construidas entre la VI y la XI Dinastías ofrece señales de las nuevas formas arquitectónicas desarrolladas bajo la influencia del culto de los muertos. Fueron los nomarcas y no los reyes quienes crearon el nuevo modelo de tumba cavada en la roca. Cuando Nebhepetre Mentuhotep (2061-2010 a. C.), fundador del Imperio Medio, edificó su famoso templo funerario en el anfiteatro rocoso de Deir el-Bahari, estaba, en principio, siguiendo la línea de evolución establecida por los nomarcas.

La forma estructural de la tumba rupestre solamente puede comprenderse si se la relaciona con la estructura física del Alto Egipto. Aquí no hay llanuras desiertas como las de Gizeh o Saqqara en el Bajo Egipto, donde las mastabas en forma de mesa de los nobles podían cimentarse fácilmente en el suelo. Cualquier construcción en el fondo del valle del Alto Egipto corría el peligro de ser destruida por las crecidas del Nilo, y a ambos lados la estrecha faja estaba ceñida de cerca por altos riscos.

La estructura física de este valle fue aprovechada plenamente para finalidades rituales. Las tumbas de los nobles, cavadas en la roca a media altura de la abrupta ladera, muestran cuán conscientes eran los gobernadores provinciales del poder que tenían en sus manos. De forma condensada, desarrollaban la secuencia real: templo del valle, calzada ascendente, templo funerario y tumba. Las formas fueron simplificadas y, en el caso del templo funerario y la tumba, llegaron a ser de tipo diferente, porque se labraban directamente en la superficie rocosa.

Entre la VI y la XII Dinastías pueden reconocerse dos etapas en la organización espacial de estas tumbas rupestres: una primera etapa en la cual las cámaras rectangulares se abrían paralelamente a las paredes del risco, y una etapa posterior en la que penetraban profundamente en la roca. En otras palabras, la evolución se desplazó desde las cámaras excavadas transversalmente *(Querraum)* a finales del

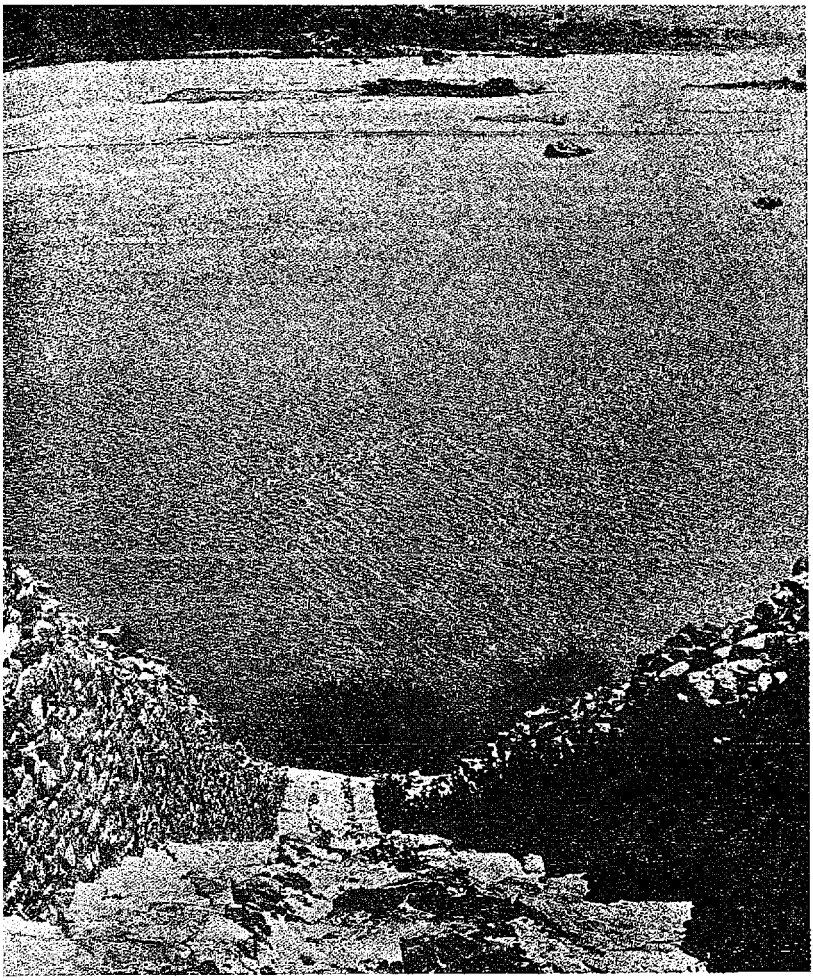


259. Tumbas rupestres de nomarcas de la VI Dinastía: Vista desde el Nilo. A la izquierda, tumba del gobernador Sabeni; a la derecha, la de su hijo Mekou. Las calzadas ascendentes se elevan hasta sus tumbas desde la orilla del río. Asuán.

Imperio Antiguo hasta las cámaras excavadas perpendicularmente *(Langraum)* del Imperio Medio.

Primera etapa: tumbas de nomarcas de Asuán, de la VI Dinastía

Las mejores expresiones de la primera etapa, en la cual las cámaras corren paralelas a la ladera del risco, son las tumbas rupestres de dos gobernadores de Elefantina (Asuán). Estas dos cámaras, que no tienen pared divisoria, pertenecían a un
fig. 262 padre y a su hijo. El padre, Sabeni, señor del Nomo Primero del Alto Egipto,ocupaba la cámara más grande a la izquierda; su hijo, Mekou, ocupaba la cámara a la derecha. La cámara de Sabeni contenía tres filas de seis columnas, las cuales, como la mesa de ofrendas y la falsa puerta, estaban labradas en la pared rocosa.

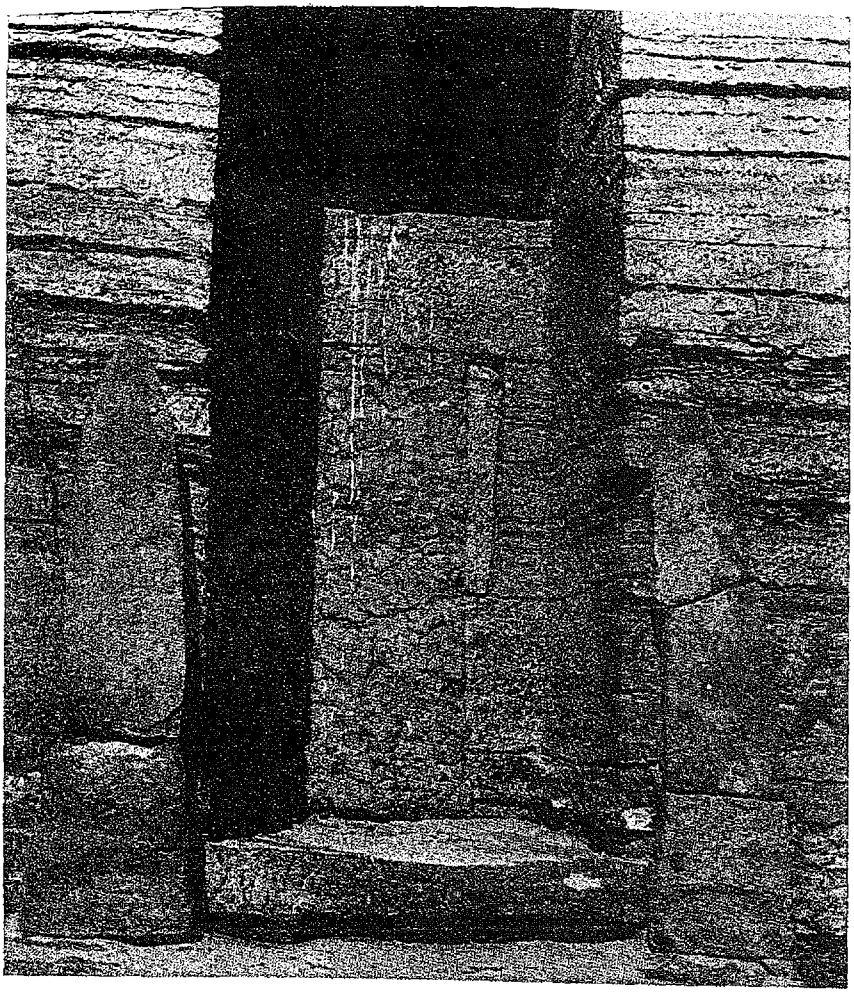


260. Tumba de Sabeni, calzada ascendente: Vista hacia el Nilo desde la entrada a la tumba, sobre la calzada ascendente bordeada de escalones.

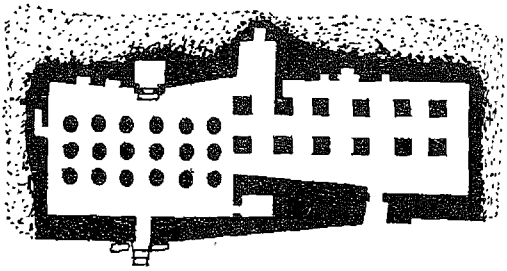
Mekou completó la tumba de su padre, que había caído en campaña contra los nubios. Luego hizo para sí una cámara inmediatamente a la derecha de aquélla, como una capilla funeraria, la cual contenía dos filas de columnas escuadradas, paralelas a las dos filas interiores de la cámara de su padre.

Dos estelas sin inscripciones flanquean la entrada a la cámara de Sabeni. No hay ninguna ornamentación. La austera dignidad del trazado está realzada por las capas horizontales de arenisca de varios colores, lo cual impresionó muchísimo a Paul Klee, cuyas pinturas acusan su influencia.

Estos datos escuetos no hacen justicia a lo que aquí se realizó, pues en estas tumbas, con su perspectiva infinitamente amplia, la relación de la muerte con el cosmos puede sentirse con más fuerza que de costumbre. Desde su posición en la mitad de la ladera del risco que surge abruptamente desde las orillas del Nilo, nada limita la perspectiva hacia el este. Al salir de las entradas de las tumbas, se tie-



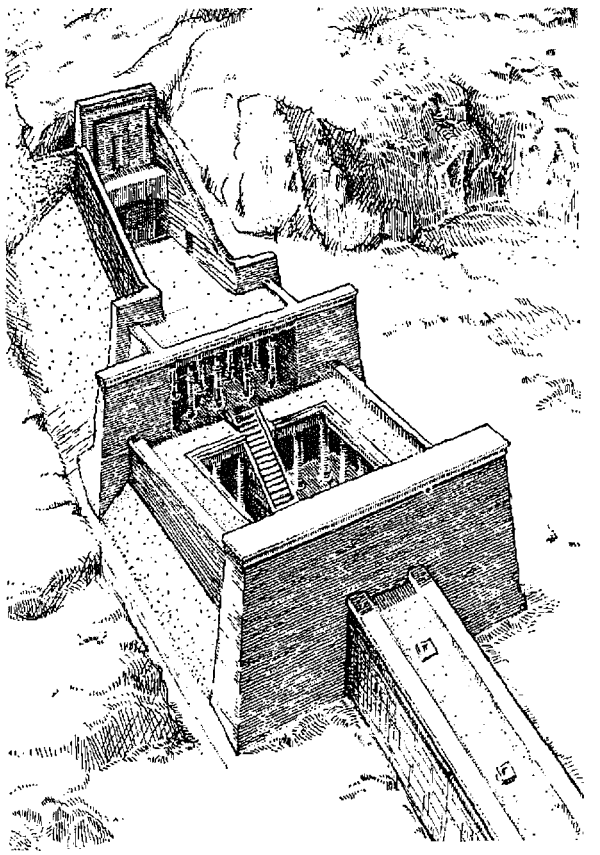
261. Tumba de Sabeni, entrada: Las paredes laterales formadas por el risco de arenisca natural con sus estratos horizontales multicolores. Dos sencillas estelas sin inscripciones se alzan delante de la entrada.



262. Planos de las tumbas de Sabeni y Mekou: Las dos salas hipóstilas, comunicadas, del padre y el hijo están cavadas en la roca viva, transversalmente a la fachada rocosa. Basado en Brunner.

ne la sensación de hallarse envuelto por la bóveda cósmica. A los hombres de hoy nos parece contemplar un vacío interminable, pero para los egipcios el cielo estaba poblado. Desde el este surgía la barca celestial con sus pasajeros de vida renovada.

Casi al pie del risco se extiende la isla de Elefantina (cerca del actual Asuán), sede de los señores del Nomo Primero, el cual era por entonces la frontera más meridional de Egipto. Elefantina era una base importante del inseguro Imperio Antiguo, y probablemente en tiempos de Sabeni era la única provincia que funcionaba activamente. Sus nomarcas, como dice Scharff, «dirigían un activo comercio de caravanas con los países situados al sur, de los cuales importaban muchas clases de mercancías preciosas, en particular marfil y pieles de leopardo que

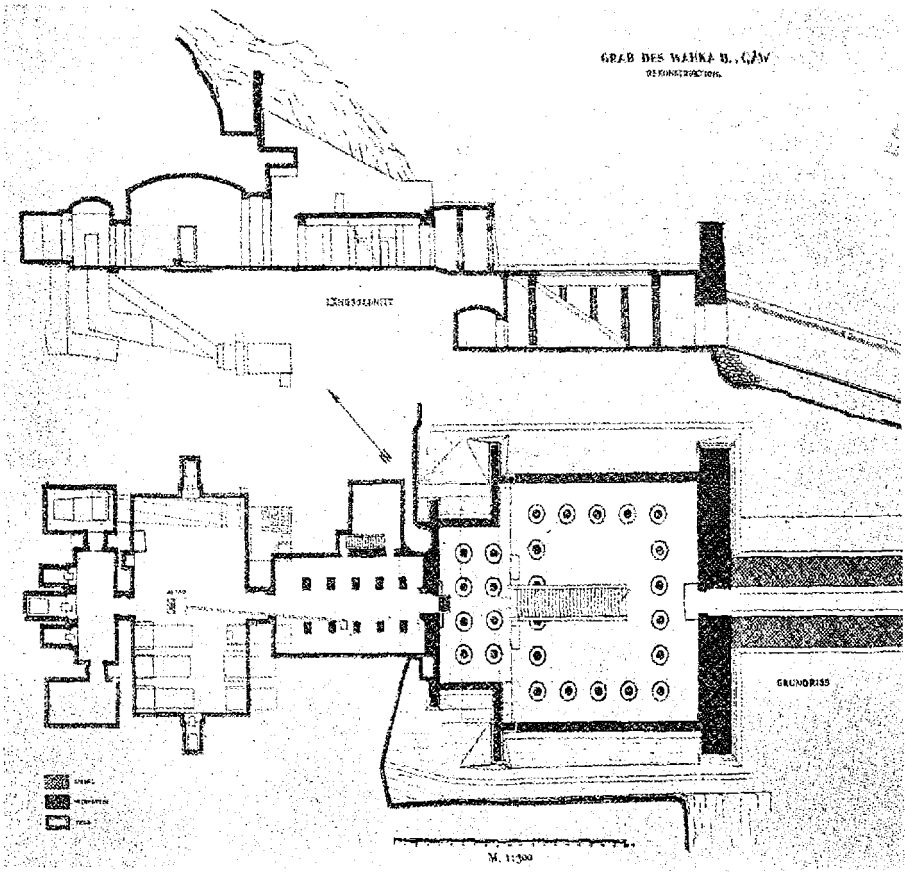


263. Tumba rupestre del nomarca Uahka II, de la XII Dinastía: El camino cubierto conduce desde la tierra fértil hasta una estructura en forma de pilono. Detrás hay un patio cuadrado y con columnas, con escalera que lleva desde el centro del mismo hasta una pequeña sala hipóstila transversal. Dentro se halla una sala hipóstila longitudinal a la que se accede por unos escalones. Más allá, la capilla funeraria. Qua el-Kebir. Dibujo según original de Steckeweh.

en aquella época eran utilizadas para las vestimentas de los sacerdotes» (Scharff y Moortgat, 1950, pág. 70).

Hay solamente una estrecha terraza frente a la entrada de las tumbas. Un tramo *fig. 259* de escalones de fuerte pendiente asciende hasta ella desde las orillas del Nilo, y en el centro de la escalera hay dos antepechos de piedra sobre los cuales descansaba el sarcófago cuando subía la ladera del risco. Seguía así un viaje simbólico de la luz a la oscuridad. Aun sin el templo del valle, se mantenía la secuencia del viaje final de los faraones, con su calzada ascendente, templo funerario y tumba. Su carácter impresionante está reforzado en este caso por la amplia visión cósmica.

Eran muy variadas las maneras como los nomarcas labraban sus cámaras funerarias y tumbas en la pared rocosa; Vandier ofrece muchos de estos planos (1954, II, págs. 293-357).



264. Sección y planta de la tumba de Uahka II, mostrando funeraria abovedada abierta en la roca. El fuerte acento sobre el eje longitudinal con sus tres niveles apunta a la posterior evolución —en escala regia— del templo funerario de Hatsepsut. Según Steckeweh.

Etapa posterior: templo funerario de Mentuhotep y tumbas de los nomarcas del Imperio Medio

Las tumbas rupestres de Beni Hasán en el Medio Egipto (Newberry, 1893), con sus magníficas pinturas murales, muestran claras huellas del trazado profundamente penetrante *(Langraum)*.

Los nomarcas de Elefantina del Imperio Medio construyeron sus lujosos sepulcros dentro de los riscos azotados por la arena, cerca de Asuán, próximos a los de sus antepasados de la VI Dinastía y aproximadamente a la misma altura. El más hermoso de estos sepulcros fue construido por Sarenput I, con un antepatio generosamente amplio. Está profundamente cavado en la ladera del risco pero no tiene terrazas escalonadas (Müller, 1940, págs. 15-51).

Entre los precursores del templo de Hatsepsut en Deir el-Bahari están el templo funerario, inmediatamente adyacente, del rey Mentuhotep, de la XI Dinastía, y las tumbas rupestres de los nomarcas de Qau el-Kebir, construidas en el apogeo de la XII Dinastía. Estas tumbas, con terrazas, están más cerca de la idea del templo funerario de la reina Hatsepsut.

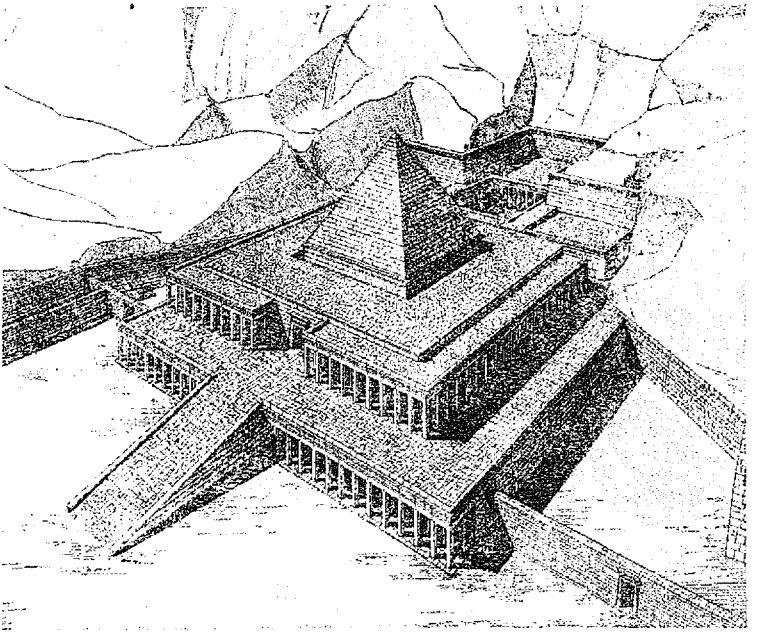
El templo funerario con terrazas de Mentuhotep

Nebhepetre Mentuhotep, que restituyó el poder a los faraones e inauguró el Imperio Medio, fue el primero que hizo de la ciudad de Tebas una residencia real. Construyó su tumba al otro lado del río, en el anfiteatro rocoso de Deir el-Bahari. Winlock, que tanto ha hecho por clarificar la confusa historia del Imperio Medio, dice: «Antes de que Nebhepetre uniera los Dos Países, había comenzado a construir su templo funerario bajo los riscos occidentales de Tebas en una escala *más grande que ninguno de sus antepasados*» (1947, pág. 38).

La edificación da la impresión de haber sufrido muchas alteraciones deliberadas: «Un examen riguroso demuestra que, cuando fue definitivamente terminado, había experimentado innumerables cambios en su traza» (pág. 40). La antigua secuencia real —templo del valle, calzada ascendente, templo funerario— puede reconocerse de nuevo, aunque en algunos aspectos es poco clara. A pesar de su impresionante grandeza, la estructura carece de unidad arquitectónica.

El templo del valle de Mentuhotep yace ahora bajo la tierra cultivada. La calzada ascendente, con paredes pero sin techo, de unos 35 metros de anchura y 1.200 de longitud, se eleva hasta el patio del templo, el cual estaba rodeado por una alta pared de guijarros. Este patio era de considerable tamaño y sus dimensiones recuerdan las del complejo del templo de Zoser en Saqqara. Detrás de él se levantaba el conjunto del templo funerario. Muy poco corriente, por lo que se refiere a las costumbres egipcias, era el pórtico de veintiséis columnas que sobresalía desde la sala con columnas.

Una rampa extraordinariamente ancha se levantaba desde el patio del templo hasta la segunda terraza, en la cual se hallaba el centro del conjunto, el templo funerario. A derecha e izquierda de esta rampa había plantados sicómoros y tamariscos en profundos pozos excavados en la arena del desierto: un signo de intimi-



265. Templo funerario del rey Mentuhotep, de la XI Dinastía: La reconstrucción muestra el amplio uso, poco corriente, de pórticos en tres de los lados; una rampa muy ancha conduce a la terraza; la pirámide maciza se levanta desde el centro de la sala hipóstila situada en el segundo nivel. El patio interior, detrás, conduce a las tumbas de la mujer y las hijas de Mentuhotep, excavadas en el frente rocoso. Deir el-Bahari. Tomado de Naville.

266. El templo funerario de Mentuhotep en la actualidad: Vista hacia fuera desde el patio interior a través de la sala hipóstila, con la subestructura cuadrada de la pirámide al fondo.

dad, de vida, introducido en la región de la muerte, y que posteriormente sería desarrollado por Hatsepsut.

Debido a que estaba levantado sobre una terraza, el pórtico del patio del templo asumía una gran importancia, convirtiéndose en un deambulatorio que rodeaba tres lados del templo, el cual estaba encerrado dentro de una pared continua. En el interior, la sala hipóstila, cuadrada, era un bosque de columnas verdaderamente exuberante. La sala continuaba con un patio más estrecho, parcialmente techado y con pilares, detrás del cual una última sala hipóstila estaba excavada dentro de la pared rocosa. A lo largo de sus lados se habían labrado nichos para seis princesas. El lugar de la verdadera tumba de Mentuhotep no se conoce con absoluta certeza *(ibíd.,* pág. 41).

El trazado entero es una versión extrema de la tumba rupestre profundamente cavada *(Langraum),* correspondiente a las posteriores tumbas de nomarcas de Qau, pero realzada aquí hasta una magnificencia regia.

La subestructura de la baja pirámide se asienta firmemente en medio de la gran sala hipóstila, levantándose pesadamente —hasta podría decirse que inorgánicamente— sobre los tejados planos de la sala, y representa el resultado de muchos cambios de plan, posiblemente inspirados por la necesidad de conservar algún antiguo rito. Así el monumento más grande del Imperio Medio es un *Langraum* en planta y piramidal en alzado. Esta contradicción arquitectónica es probablemente una de las razones de que no llegara a convertirse en un nuevo tipo de edificio.

El monumento funerario de Mentuhotep da la impresión de un enorme templo porticado. Existen varios de tales templos egipcios: el templo de Medinet Habu cerca de Tebas, el templo de Hatsepsut en Wadi-Halfa, el templo de Amenofis III en la isla de Elefantina y otros (Borchardt, 1938). Entre los de mayor encanto está el pequeño pabellón de Sesostris I, rodeado por un pórtico de pilares cuadrados y adornado con delicados relieves. Chevrier reconstruyó este pequeño pabellón de Karnak, con infinito esfuerzo, a partir de cierta cantidad de restos (Lacau y Chevrier, 1956). El templo funerario de Mentuhotep es, sin embargo, con mucho el mayor edificio porticado de Egipto. La exhibición exterior de columnatas no parece estar muy de acuerdo con la mentalidad egipcia. Los elementos creadores de oscuridad en el exterior de los edificios se ajustan mucho más a la sensibilidad griega.

Las tumbas rupestres de los nomarcas de Qau

Durante la XII Dinastía apareció otro precedente, y más importante, del templo de Hatsepsut en las tumbas rupestres de los nomarcas del Nomo Décimo, en Qau el-Kebir. Esta provincia, una de las más fértiles, estaba situada en el centro de Egipto, a más de cien kilómetros al sur de Assiut. Según G. Steindorff, las tumbas datan del período cumbre de la XII Dinastía (Steckeweh, 1936, pág. 8); según Scharff, datan de la época media de esta dinastía (Scharff y Moortgat, 1950, pág. 103), alrededor de 1900 a. C.

En marcado contraste con las tumbas de Asuán de la VI y XII Dinastías, las de

Qau están casi en ruinas. Sólo a partir de las reconstrucciones hechas por H. Steckeweh podemos hacernos una idea de su arquitectura.

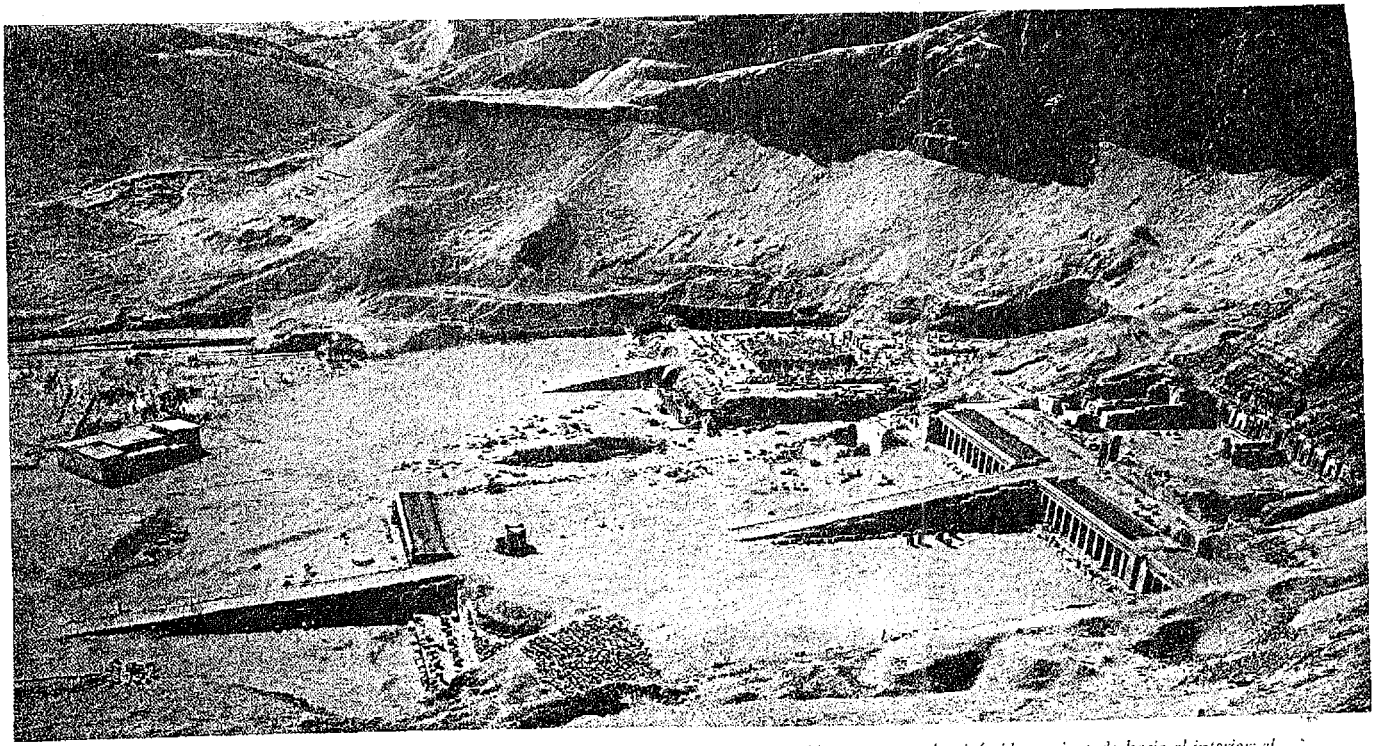
Eran las tumbas de tres nomarcas: Uahka I, Ibu y Uahka II. La más grande era la de Uakha II. Comenzaba con una estructura de ladrillo en forma de pilono. Esta estructura correspondía al templo del valle. Luego venía la calzada ascendente que conducía, a través de un pilono con paredes inclinadas, a un patio rodeado por una columnata protodórica. En medio del patio, un ancho tramo de escalones ascendía hasta la segunda terraza, en la cual se alzaban dos filas de columnas, formada cada una como por cuatro haces de cañas de papiro. Esta estrecha terraza se extendía a los ancho del conjunto como una barrera, delante de una sala hipóstila ligeramente elevada cuyos diez pilares formaban una columnata que sobresalía dentro de la roca, mientras que el techo creaba una tercera terraza. Todo esto no es arquitectónicamente sino un preludio, pero este preludio se ha convertido ahora en el tema principal de la composición. Desde la tercera terraza se entraba en la roca misma, en la cámara de ofrendas y ritos funerarios. Esta gran cámara, excavada en la roca, estaba completamente exenta de columnas y cubierta por una alta bóveda dividida en segmentos. Desde ella se entraba a las partes más secretas de la tumba.

La característica especial de esta estructura y de las dos inmediatas, las tumbas de Uahka I e Ibu, es su clara secuencia de terrazas y la importancia dada al eje longitudinal. Al mismo tiempo cada zona separada estaba «anunciada por un distinto alzado del frente» (Steckeweh, 1936, pág. 32). Fue un experimento consistente en trabajar con niveles diferentes a pequeña escala pero con una base puramente arquitectónica.

«Nos encontramos —dice el excavador— en la estructura privada más grande y más hermosa conocida en el período anterior al Imperio Nuevo... la cumbre del arte provincial en el Imperio Medio» (pág. 31). Lo que se ofrece aquí en pequeña escala y con una cierta vacilación (demostrada por la repetición de barreras horizontales) es una anticipación de la radiante planificación del templo de Hatsepsut, donde la tumba misma ha desaparecido y solamente una pequeña capilla funeraria labrada en la roca indica el propósito original de la estructura. Más adelante, en el Imperio Medio, Sesostris III (1878-1842 a. C.) tomó firmemente las riendas del poder y las tumbas principescas de los nomarcas desaparecieron. Desde entonces no tuvieron una influencia arquitectónica significativa.

El templo con terrazas de la reina Hatsepsut

Nos hallamos a comienzos del siglo XV a. C. Los hicsos han sido expulsados y el Imperio Nuevo ha sido fundado por la XVIII Dinastía, la cual va a gobernar durante más de doscientos años (1552-1302 a. C.). Sus faraones poseyeron personalidades claramente determinadas y contrastantes: duros conquistadores como Tutmosis III; Hatsepsut, igual en grandeza, aunque femenina y amante de la paz;



267. Templos funerarios de Hatsepsut y Mentuhotep: El templo de Mentuhotep está basado ideológicamente en la pirámide y orientado hacia el interior; el de Hatsepsut, con sus tres amplias terrazas, abarca el paisaje exterior. A las dos primeras terrazas se accede por rampas. En 1922, cuando H.E. Winlock tomó esta vista, los santuarios más interiores no estaban completamente excavados. Deir el-Bahari.

Amenofis IV (Akenatón), también completamente diferente, puritano religioso e iconoclasta; y finalmente el joven Tutankamen, cerca del final de la dinastía, el esplendor de cuyos ornamentos fúnebres deja entrever el lujo complicadamente sutil de una corte real sobrefatigada.

La reina Hatsepsut reinó alrededor de dos décadas (1490-1469? a. C.), pero no sabemos exactamente cómo y cuándo acabó su reinado.

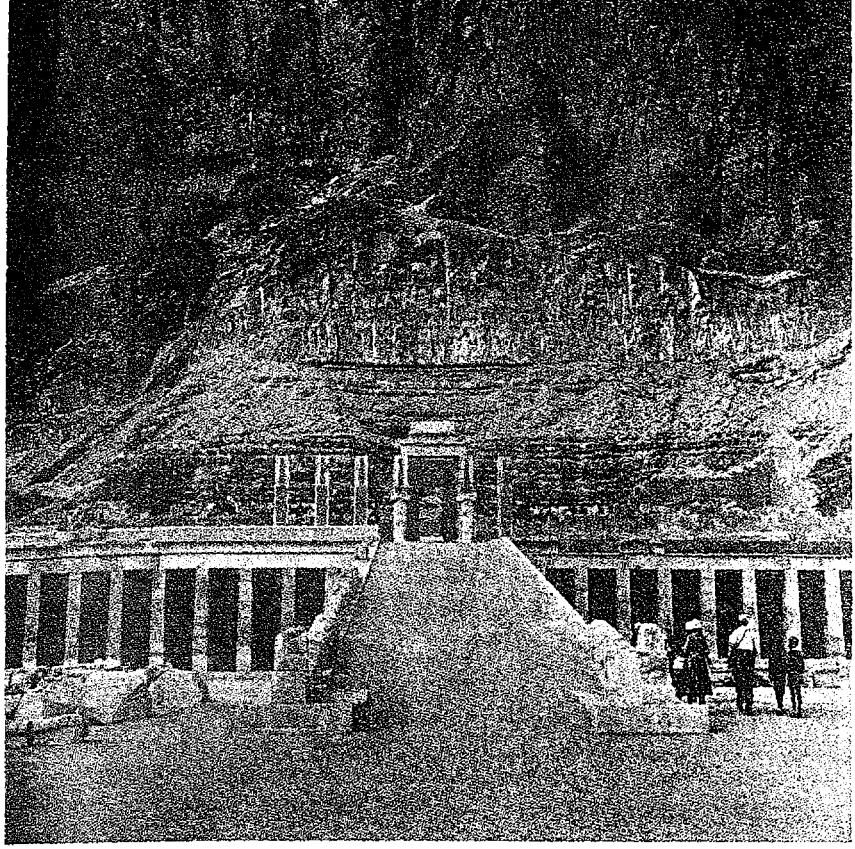
Teóricamente, el rango y título de faraón solamente podía ser asumido por un hombre. Esto explica por qué casi todas las estatuas de Hatsepsut en su templo con terrazas la muestran con forma de varón. Sólo el rostro revela su encanto femenino. Reprimida su naturaleza fuertemente femenina por las leyes inflexibles del protocolo egipcio, Hatsepsut estuvo casada primeramente con su hermanastro Tutmosis II, físicamente débil. Este murió unos pocos años después. Un niño, Tutmosis III, hijo de Tutmosis II y de una concubina, se convirtió entonces en faraón. Al principio, Hatsepsut gobernó como regente en nombre de su hijastro, quien más tarde llegó a ser el rey guerrero más grande de Egipto. Pero pronto, apoyando su reclamación en que era directamente descendiente de una reina de sangre real, Hatsepsut se proclamó soberana de los dos países: Alto y Bajo Egipto. Se convirtió en faraona, adoptando tanto el título como la vestimenta y los distintivos oficiales.

Hatsepsut y Senmut

En la solitaria vida de la reina irrumpió Senmut, quien gradualmente fue ascendiendo, paso a paso, hasta convertirse en el «más grande de los grandes» (Winlock, 1942, pág. 150). Senmut poseía dos raras cualidades que pocas veces se dan juntas: era un gran artista y un gran estadista. Todas las posiciones claves del reino estaban en sus manos. Pero lo que nos interesa aquí es su genio arquitectónico. Siempre resulta difícil dar salida a cualquier expresión personal cuando, como en Egipto, prevalece una fuerte tradición espléndida en sí misma. Para que una voz individual pudiera ser oída como lo fue en Deir el-Bahari se necesitaba gran energía y valor. Solamente cuando hay un estrecho acuerdo entre arquitecto y cliente, y cuando el arquitecto es capaz de dar vida a algo que duerme ya en la mente del cliente, puede una fuerte imaginación conceptual hallar soluciones dentro de los límites de una tradición todopoderosa.

Esta es una verdad general que tiene particular importancia en el caso de Egipto. La estrecha colaboración entre el rey Zoser e Imhotep, un genio universal no diferente de Senmut, dio por resultado el nacimiento de la arquitectura de piedra. Ahora, en la XVIII Dinastía, puede observarse otra colaboración, más estrecha si cabe, entre Hatsepsut y Senmut. Lo que hizo que esta colaboración diera sus frutos fue la afinidad espiritual y corporal entre Hatsepsut y su administrador.

Senmut poseía un poder casi ilimitado. Era el Administrador de Amón, lo cual significaba que lo era de todas las vastas propiedades del gran templo de Karnak. Era «Supervisor de todas las Obras del Rey en el Templo de Amón», y finalmente «Supervisor de Supervisores de todas las Obras del Rey» (Winlock, 1928, pág. 50). En otras palabras, toda la responsabilidad tanto por lo que se refiere al

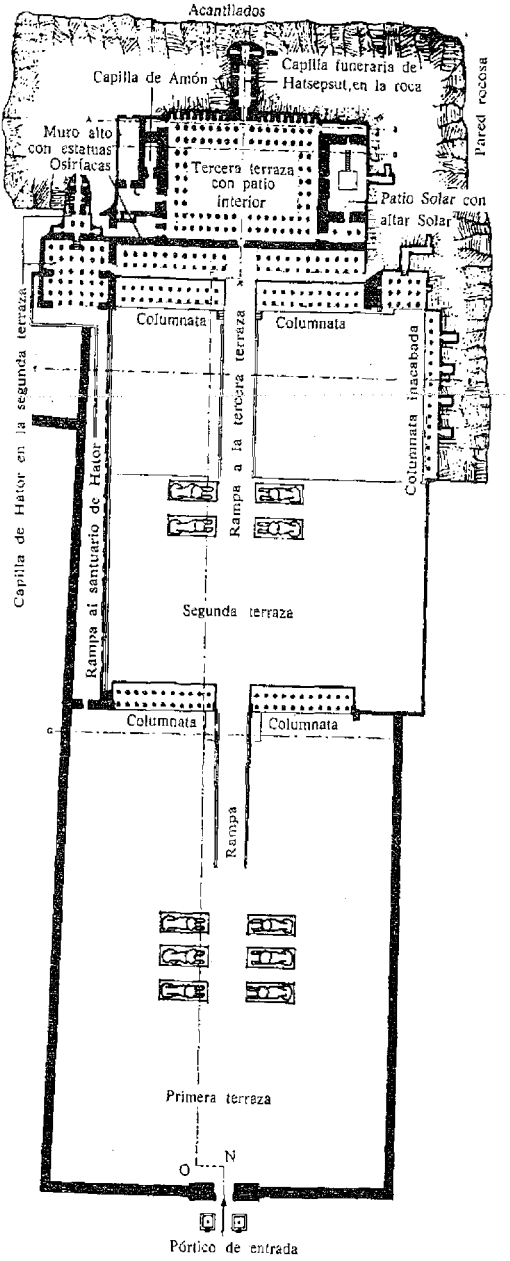


268. Templo funerario de Hatsepsut: Rampa desde la segunda terraza. Esta segunda rampa ancha conduce a la tercera terraza con sus santuarios.

proyecto como a la ejecución estaba concentrada en las manos de un genio. Senmut llevó a la realización las cualidades de la naturaleza de Hatsepsut, lo cual podemos ver en Deir el-Bahari: un acontecimiento único en la historia de la arquitectura.

Senmut tenía acceso oficial a la esfera más privada. Hatsepsut le hizo supremo administrador de su casa y también «Superintendente de las Estancias Privadas, de la Sala de Baños y de los Dormitorios Reales» (pág. 52). Además de esto, era el responsable principal de la hija de Hatsepsut, Neferure, que murió de niña y con quien Senmut aparece frecuentemente retratado en estatuas-bloque.

Todos sus altos cargos eran conocidos por todo el mundo. Más reveladoras son las sugerencias ocultas de sus relaciones. Cuando Senmut preparaba su segunda tumba, excavando hacia los recintos sagrados del templo, colocó una inscripción sobre el techo astronómico, maravillosamente proyectado, relacionando su propio nombre con el de la reina, e incluso con el dios Horus: «Larga vida a Horus... Rey del Alto y del Bajo Egipto, 'Maatkare' [Hatsepsut], amada de Amón, quien vive, y el Canciller, el Administrador de Amón, Senmut» (pág. 57). Esto



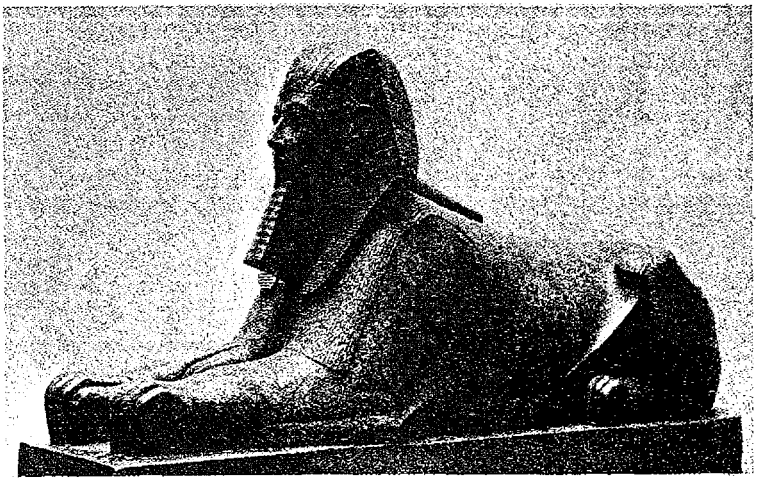
269. Plano del templo de Hatsepsut. Según Naville.

podría haber parecido a los egipcios una blasfemia incluso mayor que el hecho de que Senmut, simple mortal, estuviera representado detrás de cada puerta en el templo de Deir el-Bahari.

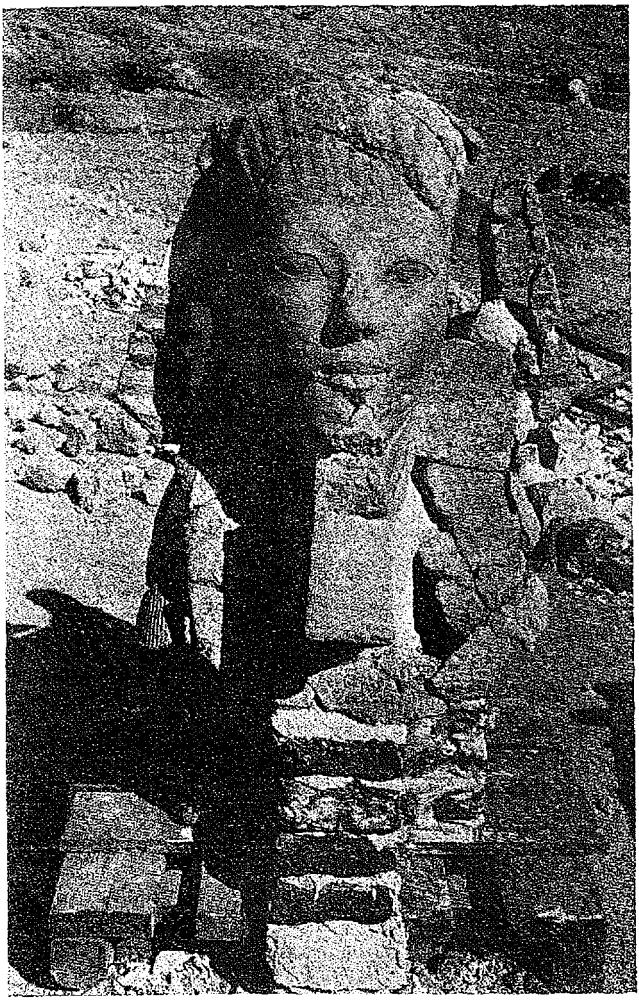
Aunque Senmut y Hatsepsut habían de ser enterrados en lugares diferentes, sus sarcófagos eran idénticos.

Las inscripciones egipcias son invariablemente reticentes cuando se refieren a la esfera personal. Tenemos poco más que indicios indirectos de las relaciones de la reina con su administrador. En una de las canteras se ha hallado una vasija de alabastro inscrita con el nombre de Hatsepsut, y con ella un pequeño platillo también de alabastro en el cual figuraba el nombre de Senmut (pág. 38).

«Como era costumbre sólo para matrimonios de alta cuna, los nombres de Senmut y Hatsepsut estaban grabados uno junto al otro en los abalorios hallados en los cimientos del templo con terrazas» (Hermann, 1959, pág. 47). Más reveladores aún son algunos enigmáticos símbolos grabados sobre los hombros de dos estatuas-bloque de Senmut con la pequeña Neferure que se encuentran actualmente en los museos de Berlín y El Cairo. Senmut, en cuclillas, cubre con su manto a la pequeña princesa. Un penetrante estudio de E. Drioton revela que los dos nombres de la reina Hatsepsut son presentados aquí como un criptograma (1938). En uno de los hombros, Senmut sustituyó la cartela que normalmente contiene los nombres reales por una representación de la diosa-buitre, que desde la época de Zoser había sido mostrada revoloteando protectoramente por encima del rey. Luego transformó este buitre en símbolos que componían un criptograma del primer nombre de la reina: Maatkare (pág. 235, fig. 17). Sobre el otro hombro se halla la figura fantástica de un dios, portando símbolos en lugar de cabeza. Esto significa el segundo nombre de la reina: Hatsepsut. Drioten dice que Senmut declara con orgullo que él mismo grabó los signos «siguiendo los impulsos de



270. Esfinge de Hatsepsut, de granito rojo. De la segunda terraza de su templo.



271. Cabeza de esfinge de Hatsepsut: Ni siquiera la deliberada mutilación pudo destruir el encanto del rostro de la reina.

mi corazón y con mis propias manos» (pág. 231). En otras palabras, tallar secretamente los nombres de la reina a manera de criptogramas en una estatua no se diferencia mucho de grabar las iniciales de la amada en la corteza de un árbol.

No sabemos en qué circunstancias finalizó la reina Hatsepsut su reinado, ni las causas de la caída y muerte de Senmut en los últimos años del mismo. Hatsepsut no ha sido tratada demasiado favorablemente por los egiptólogos. Era efectivamente una «mujer vana, ambiciosa y sin escrúpulos» (Hayes, 1959, II, pág. 82), y Vandier escribe que «la reina Hatsepsut estaba demasiado ocupada con las difícul-

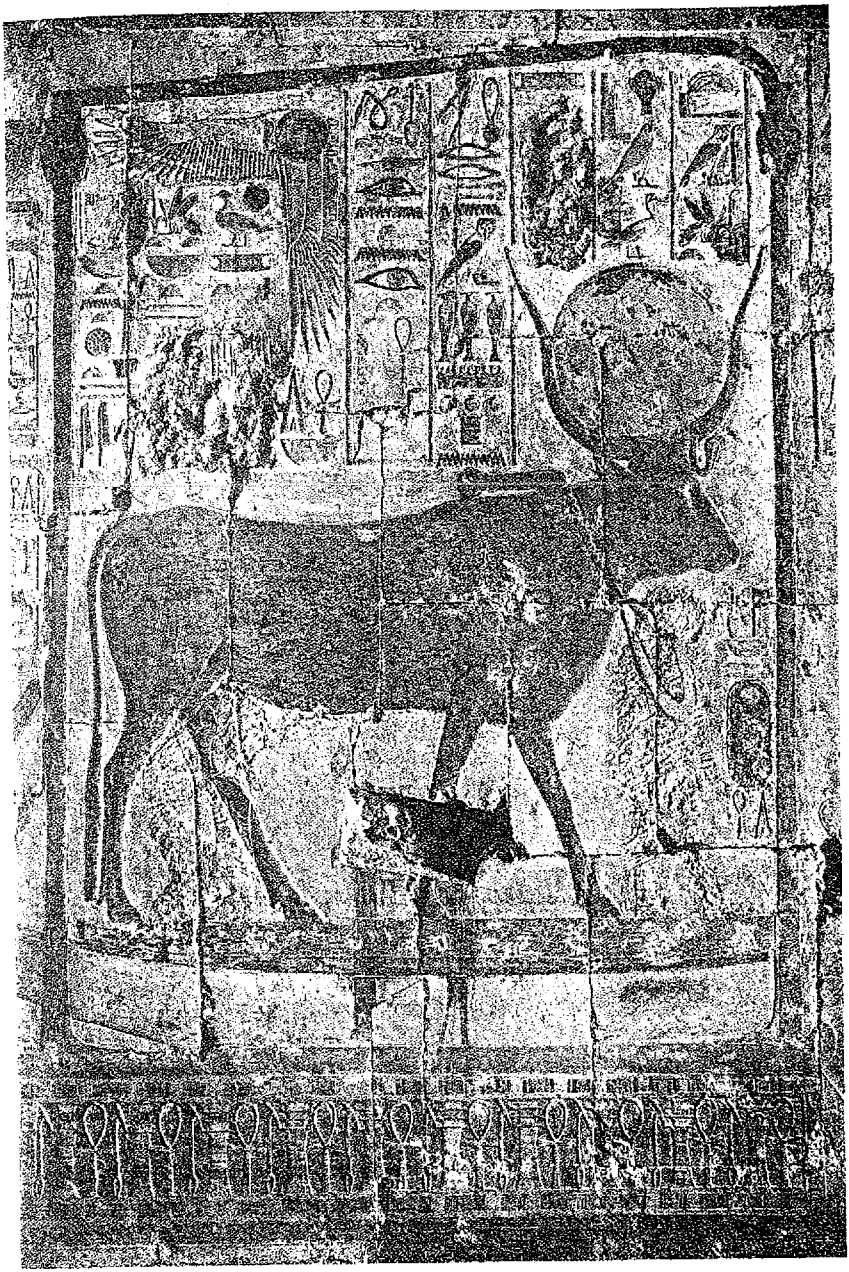
272. Estatua-bloque de Senmut con la princesita Neferure.

tades interiores que había creado con sus propias ambiciones como para interesarse [como Tutmosis III] por los asuntos de Asia» (Drioton y Vandier, 1938, pág. 382). Hatsepsut no se preocupó excesivamente por Asia. Su carácter no era el de un conquistador. Estuvo entre dos reyes guerreros, Tutmosis I y Tutmosis III, los conquistadores egipcios más agresivos. Medir a la reina por el patrón de estos dos héroes guerreros es comparar dos actitudes ante la vida diametralmente opuestas. Hatsepsut era una mujer profundamente femenina. Aquí reside su genio. «La violencia y el derramamiento de sangre no tenían lugar en su carácter. El suyo

273. Hatsepsut alimentada por Hator: Relieve en la pared sur de la capilla de Hator, con Hatsepsut en forma de muchacho, bebiendo de la ubre de la vaca divina.

fue un reinado dominado por un arquitecto» (Winlock, 1928, pág. 52). Lo que ella anhelaba y aquello por lo que luchó fue, en una palabra, la paz sobre la tierra.

Esto se pone de manifiesto en los hermosos relieves que hay detrás de las columnatas de las terrazas de su templo. Las escenas se alzan como una protesta silenciosa contra todas las ampulosas representaciones de un faraón victorioso dando muerte a sus enemigos, desde las de Narmer hasta las de los ramésidas. Cuando Hatsepsut representó regimientos desfilando con trompetas, tambores y estandartes detrás del peristilo de la terraza inferior, eran los que acompañaron la erección ceremonial de uno de los obeliscos del templo de Karnak. Cuando, en la segunda terraza de Deir el-Bahari, la reina reprodujo los pertrechos de una expedición, se trataba de una que envió al país de Punt para el intercambio pacífico de manufacturas egipcias por ébano, pieles de leopardo, incienso y árboles fragantes para el templo de Karnak, y tal vez también para Deir el-Bahari. En la sala hipóstila del santuario de Hator en Deir el-Bahari hallamos un tema favorito, repetido en otras partes del templo: «Se trata de una procesión festiva de soldados transportando ar-



274. Hator representada como la vaca divina: Relieve en la pared norte de la capilla de Hator mostrando a ésta, la «dorada», con el disco solar entre los cuernos y el sistro (menit) alrededor del cuello, majestuosamente de pie sobre su barca sagrada y bajo un dosel. Las dos figuras de Hatsepsut, así como sus cartelas, fueron cinceladas por Tutmosis III.

mas, ramas de árboles y estandartes sagrados. Estos soldados son llamados 'los danzantes de las barcas reales'. Ellos... animan la navegación o un festival con danzas y cantos» (Naville, 1901, pág. 2).

Lentamente esta opinión sobre la reina ha ido ganando aceptación. La personalidad de Hatsepsut no sólo afectaba a sus asuntos privados; ella la hizo visible y la dejó grabada para siempre. Ya en 1933 Junker (pág. 110) declaraba que el nombre de Hatsepsut había quedado insólitamente arraigado en la historia del país, y Hermann pone de manifiesto los antecedentes ideológicos y personales de la reina. Su línea ancestral por la rama femenina estaba estrechamente relacionada con Creta, y Hatsepsut «parece haber heredado una tradición cultural especial de sus antepasados. El aspecto más digno de mención de su reinado —su política decididamente pacifista— puede contemplarse no sólo como expresión de su feminidad sino también en su afinidad con la idea de paz mantenida por la cultura cretense-minoica» (Hermann, 1959, pág. 38). Las ciudades de Creta, no amuralladas, vivían del comercio pacífico a través de los mares. «El amor nuevamente despierto por la aventura marina, que nos gustaría relacionar con la tradición de las reinas de Creta, queda insinuado en la gran expedición comercial de Hatsepsut a Punt» (pág. 39).

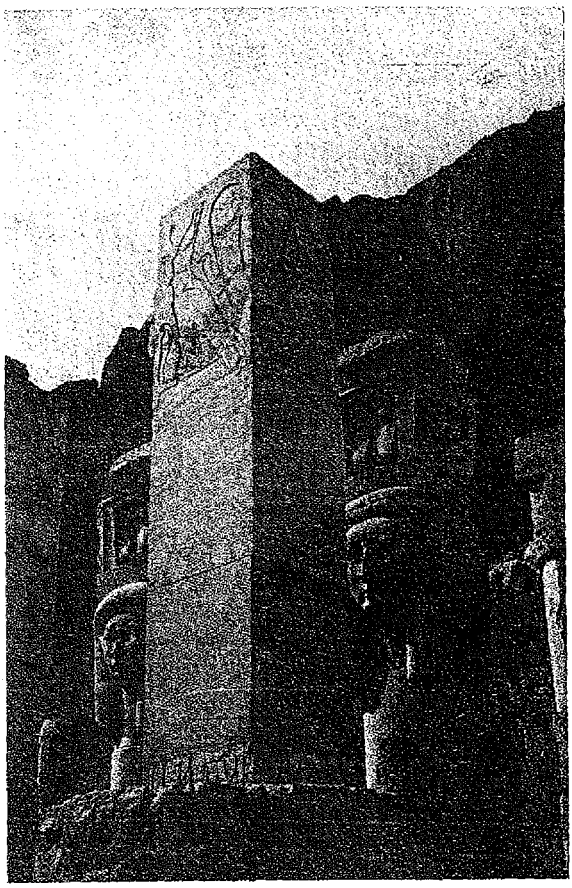
Los relieves situados detrás del peristilo en el centro de la segunda terraza representan la fanática determinación de Hatsepsut de legitimarse como faraona, puesto que cada año aumentaba la edad del joven Tutmosis y amenazaba la posición de la reina. No bastaba que hubiera heredado la sangre real tanto de su madre como de su padre: Hatsepsut se presentaba en dichos relieves como la hija directa del dios Amón, quien había visitado a su madre tomando la apariencia del padre.

Indudablemente Hatsepsut era vanidosa. En conjunto, Deir el-Bahari no tiene sino un solo tema: Hatsepsut. Todo lo demás es secundario. Como una mujer consciente de su belleza que nunca se cansa de mirarse en el espejo, la reina colocó estatuas suyas por todas partes y en todas las posiciones: de pie, de rodillas, con una ofrenda en la mano, y en forma de esfinge o como Osiris.

Normalmente, tal cantidad de autorretratos en metamorfosis llegaría a ser irritante, pero están tratados con tal calidad escultórica que no producen irritación. Además, el contemplador recuerda las palabras grabadas en la roca, las cuales eran probablemente una descripción fiel de la reina en la época en que comenzó el templo, probablemente en el quinto año de su reinado: «Mirarla era más hermoso que nada; su esplendor y su forma eran divinos; era una doncella hermosa y radiante» (Winlock, 1942, pág. 144).

La estructura del templo

El plano se desarrolló rigurosamente: «Cuando Hatsepsut y su arquitecto, Senmut, proyectaron edificar un templo al oeste de Tebas, la única construcción impresionante que allí había era este templo de Nebhepetre [Mentuhotep], el primer rey tebano de todo Egipto. Su plano fue el modelo lógico, y el espacio que había junto a él, el lugar idóneo. Evidentemente sus ambiciones, al principio, no



275. Columnas bicéfalas de Hator: Estas dos columnas se hallan en la primera sala hipóstila de la capilla de Hator.

llegaban hasta el punto de intentar algo tan grandioso como el templo del fundador de Tebas... Antes de que Senmut llegara a su fin, había edificado un templo cuya estructura, sin contar el patio, abarcaba más de tres veces el área prevista en el plano original —haciendo la planta más del doble que la del templo de Nebhepetre— y había alterado casi todo el aspecto excepto el esquema general de las terrazas con pórticos de columnas.» (Winlock, 1942, pág. 135). La antigua secuencia fue conservada: templo del valle, calzada ascendente, templo funerario y, finalmente, la capilla fúnebre excavada en la ladera rocosa. Pero surgió una forma arquitectónica completamente diferente. Aquí todo es más libre, más delicado, más abierto que en cualquier otro conjunto arquitectónico egipcio anterior o posterior.

Había tres terrazas que se extendían desde el límite de las tierras cultivadas en derechura hasta la pared del risco. Partes de dichas terrazas estaban excavadas en la roca. Unas rampas anchas y suavemente inclinadas unían una terraza con otra, con una elegancia regia. El aspecto más sorprendente de todo el conjunto era su sentido ascendente. Es cierto que la terraza inferior estaba amurallada, penetrándose en ella a través de una puerta, y la terraza superior, que se internaba en la superficie rocosa, estaba protegida por una pared. Estas eran precauciones rituales; pero estos cerramientos de ningún modo perjudicaban la libertad espacial del trazado, debido a las grandiosas dimensiones de las terrazas, a las relaciones establecidas entre las columnatas verticales y las extensiones horizontales, y a la articulación de las paredes.

La segunda terraza se presentaba como la más grande y la más abierta y debió ser el último lugar de parada de la procesión antes de que penetrara en el cerrado santuario interior. Todos los años la pequeña estatua de madera de Amón partía en su barca sagrada desde la oscuridad de su celda en el templo de Karnak para visitar el templo de Hatsepsut e instalarse en la capilla dedicada al dios dentro de la pared rocosa detrás de la terraza superior.

Esfinges de arenisca de reducido tamaño se alzaban a derecha e izquierda del camino procesional que conducía desde el borde de las tierras de labor. Dentro del recinto del templo dichas esfinges estaban seguidas por otras, muy grandes y hermosas, de granito rojo. Una de ellas, restaurada a partir de muchos fragmentos, se halla actualmente en el Metropolitan Museum de Nueva York: «Con unos tres metros y medio de longitud y un peso de siete toneladas y media aproximadamente, la esfinge recompuesta es una sólida pieza de escultura arquitectónica» (Hayes, 1959, II, pág. 93).

Si había un lugar adecuado para alojar una gran cantidad de personas, este lugar era la segunda terraza. La perspectiva era abierta, de manera que podía verse muy lejos en el amplio paisaje, a través del Nilo hasta los templos de la orilla opuesta. Se dice que el piramidión revestido de oro del obelisco de Hatsepsut en Karnak era visible desde esta terraza.

A la derecha, los baluartes rocosos situados inmediatamente detrás de la columnata atraían la vista irresistiblemente hacia arriba. En este escenario, animado por la más audaz asimetría, fue introducido un elemento formal: un peristilo de columnas protodóricas en el lado norte. Pero este peristilo nunca fue completado.

Ya estaba todo dispuesto para la finalidad efectiva del conjunto de edificios: los ritos funerarios. Detrás de la sala con columnas, a la derecha, hay un santuario pequeño pero bien conservado, dedicado a Anubis, el dios con cabeza de chacal. En el extremo izquierdo, sobresaliendo ligeramente hacia adelante desde el largo peristilo, se halla el abovedado santuario de Hator, excavado en la roca. Este santuario fue construido con gran esmero debido al especial significado de la diosa Hator como guardiana de la necrópolis de Tebas. Su refinamiento espacial superaba el de cualquiera otra parte del templo.

Existía ya un santuario consagrado a Hator en el extremo norte del cercano templo de Mentuhotep, visitado tanto por las generaciones anteriores como por las posteriores. Dicho santuario fue excavado por Naville, quien halló una escultura bien conservada de Hator en forma de vaca dentro de una bóveda de cañón

pintada. La bóveda y la vaca se hallan hoy en el Museo de El Cairo. Hator está representada en su forma original bovina, caminando desde los terrenos pantanosos de papiros del oeste para ofrecer protección directa al rey.

Hator aparece también frecuentemente en forma de vaca en los delicados relieves de su santuario en el templo de Hatsepsut, y de manera que manifiesta de nuevo la resuelta personalidad de la reina. Efectivamente, Hator es presentada a veces como diosa, con un largo cetro en la mano, recibiendo ofrendas. Pero las escenas en las que aparece en forma de vaca son más llamativas, como cuando lame la mano extendida de la reina, cuyo significado se explica en el texto: «Besar (literalmente oler) la mano, lamer la divina carne, dotar al rey de vida y pureza (o felicidad)» (Naville, 1901, pág. 3).

La gracia y la dignidad con que la vaca divina se yergue en su barca sagrada protegida por un dosel, en la pared de la parte más profunda del santuario cavado en el frente rocoso, resiste la comparación con los mejores grabados de animales prehistóricos. La reina aparece tres veces, habiendo sido cada figura mutilada por Tutmosis III. Primeramente se halla debajo de la cabeza de Hator, «con la apariencia de un hombre maduro y portando los distintivos del poder real» (pág. 5). Luego, con el aspecto de un joven, aparece agachada debajo del vientre de Hator, bebiendo de su ubre mientras Hator declara: «Yo he amamantado a Vuestra Majestad con mis pechos. Os he llenado con mi inteligencia, con mi agua de vida y felicidad. Yo soy vuestra madre, que formó vuestros miembros y creó vuestros encantos» (pág. 4). A la derecha del panel se ve a Hatsepsut en su propia forma, presentando ofrendas de vino, frutas, verduras y carne.

En la parte más recóndita del santuario están las únicas representaciones de la reina que se conservan intactas. En una de ellas aparece de nuevo como un niño *alimentado por Hator; es posible que esta representación se librara de ser destruida* gracias a la existencia de un relieve de Hatsepsut y Tutmosis, arrodillados uno junto al otro con ofrendas de leche y vino, *precisamente encima* de la abertura adyacente de un pequeño nicho. Dentro de este nicho, a la vuelta de la esquina del grupo de la divina Hator con la joven Hatsepsut, Senmut no pudo resistirse a colocar su propia figura.

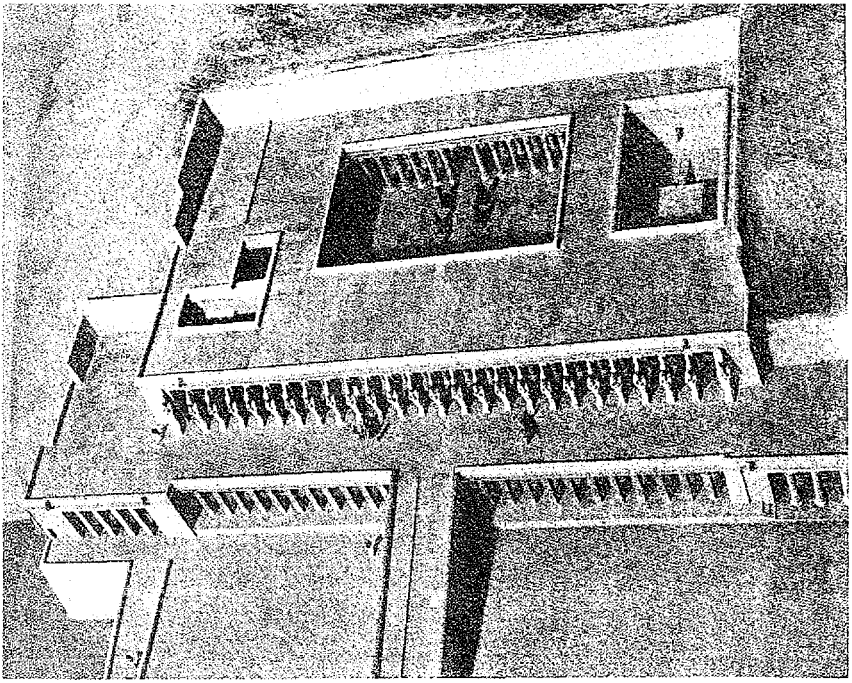
El santuario de Hator del templo de Hatsepsut está integrado orgánicamente en el conjunto, pero tenía acceso directo desde el valle por una rampa suavemente inclinada, como se ve fácilmente en la maqueta. Sobre una superficie muy pequeña, en el extremo sur de la terraza, hay una serie de cámaras excavadas en la roca, que van aumentando en altura, acompañadas por ramificaciones de cámaras laterales *sutilmente modeladas* y que terminan en un nicho bajo bóveda de cañón. Enfrente de esta serie hay dos salas hipóstilas, una de ellas con dos pilares cuadrados rematados por capiteles con la *doble cabeza de Hator, mirando* a oriente y a occidente.

Una segunda rampa conduce hasta la tercera y última terraza: los santuarios más interiores encerrados dentro de una alta pared. Contra esta pared se alza una fila de estatuas osiriacas, altas y policromas, todas las cuales llevan el rostro de la reina.

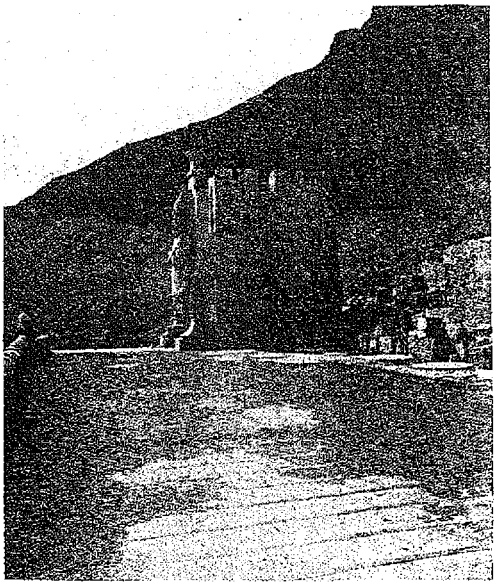
Una estrecha entrada de granito daba acceso a estos santuarios interiores, pero enfrente de la imponente pared con las estatuas osiriacas se dejó espacio para

276. *Busto de Osiris con las facciones de Hatsepsut. De la tercera terraza.*

277. *Estatua de Osiris en la tercera terraza: Esta estatua recompuesta, con el rostro mutilado, se alza delante del muro alto de la tercera terraza, protegiendo los santuarios interiores.*



278. *Maqueta de las terrazas superiores: La rampa asciende desde la segunda terraza hasta la empalizada de las estatuas de Osiris, delante de la cual se extiende una larga y amplia terraza que proporciona una perspectiva excelente del valle del Nilo. En el extremo izquierdo está indicada una entrada independiente desde el nivel del suelo hasta la capilla de Hator. Dentro del patio interior de la derecha hay un altar solar.*



279. *Estado actual de la tercera terraza: Estatua de Osiris, la pared parcialmente reconstruida, y, al fondo, la terraza abierta.*

una amplia terraza que se extendía a todo lo ancho del templo, proporcionando una última y amplísima perspectiva sobre un mundo bañado por el sol: un escenario apropiado para un hotel de lujo del siglo XX.

La pared significaba el final. Alrededor del patio interior se extendía un conjunto de santuarios que concentraban el propósito real del proyecto en un punto único.

Todo el templo estaba dedicado a Amón-Ra, guardián de todos los templos funerarios de las dinastías del Imperio Nuevo. Las diferentes capillas que se extienden a derecha e izquierda de esta terraza superior no ofrecen nada fuera de lo corriente, arquitectónicamente hablando. La abovedada capilla funeraria para Hatsepsut y su padre, Tutmosis I, cavada profundamente en la roca, es el punto culminante de la composición y vuelve a introducir directamente en la oscuridad.

Inseparabilidad de la escultura y la arquitectura

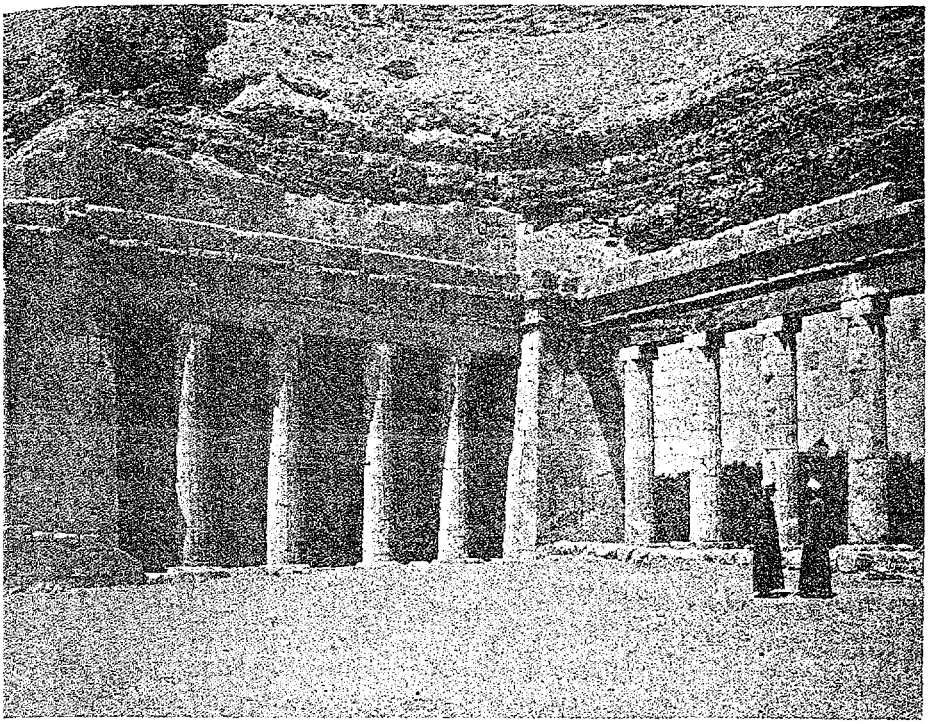
La posición asignada a este templo funerario de Deir el-Bahari en la esfera total de la arquitectura egipcia varía. Pero la síntesis de escultura y arquitectura lograda aquí no tuvo paralelo en Egipto ni antes ni después. El templo dista mucho de la opresiva perspectiva próxima de la arquitectura colosal de los templos faraónicos posteriores. En Deir el-Bahari todo fue subordinado a la escala humana y a la visión desde lejos. La escultura no domina la arquitectura, ni ésta a aquélla, sino que se complementan mutuamente. Han llegado a ser indivisibles.

Unir la escultura y la arquitectura, de manera que cada una realce la otra en vez de tratar de llevar una existencia independiente, es uno de los problemas más delicados. Muy raramente se logra la unidad. Cuando se logra, nos hallamos ante una de esas extrañas y afortunadas ocasiones en que el arquitecto y el cliente tienen la misma opinión y desean dar expresión a la misma idea.

La sutileza de la cohesión entre escultura y arquitectura en Deir el-Bahari no puede comprenderse a primera vista, sintiéndose a través de la disposición de las formas más que a través de las formas mismas, como lo que se lee entre líneas de un libro bien escrito. Esta unidad no puede comprenderse a menos que se advierta la estrecha relación de la arquitectura y la escultura con la religión. Mucho después, en las catedrales góticas —productos finales de un largo período de evolución—, la idea y la forma fueron de nuevo armonizadas en una síntesis.

Un fuerte contraste escultórico fue aplicado conscientemente en la tercera terraza. La empalizada de estatuas policromas de Osiris formaba la pared protectora del santuario, excluyendo a todos los no iniciados, pero su presencia apenas se notaba. Cada una de las estatuas colosales del dios de la muerte, generalmente impresionante, llevaba el joven rostro de la reina. Aunque el color fue utilizado en otras partes con grandes restricciones, estas figuras fueron pintadas para ser vistas a distancia, con «la larga y curvada barba osiriaca pintada de azul... Los cuellos y los rostros son rojos, con los ojos blancos y negros y las cejas azules, y los distintos atributos que las figuras portan o sujetan son rojos, azules y amarillos» (Hayes, 1959, II, pág. 91).

En este templo funerario, Hatsepsut solía ser representada en la forma momi-



280. Ángulo noroeste de la segunda terraza: Los baluartes de roca natural se ciernen sobre la estructura hecha por el hombre con perenne gesto amenazador. Esta arquitectura, como las pirámides, está concebida en términos cósmicos, pero en este afortunado momento nunca trasciende la escala humana.

ficada de Osiris, señor del mundo de los muertos: los brazos cruzados sobre el pecho; la mano derecha sujetando el cetro, el *was*, un cayado de pastor que, según se creía, proporcionaba a quien lo poseía riqueza y prosperidad; y la mano izquierda sosteniendo el signo de vida, el *ankh*, y un mayal.

Después de la difusión del culto de Osiris, hacia el final del Imperio Antiguo, el dios de la muerte y su símbolo —la renovación eterna— llegaron a tener un gran significado. En este templo Osiris fue reproducido primeramente en dos estatuas gigantescas a cada lado del peristilo más bajo, luego en la fila de estatuas policromas de la terraza superior, y finalmente en nichos abiertos en la roca. Siempre predominó la forma momificada, llevando el rostro de la reina.

Las filas de estatuas osiriacas no constituían ninguna novedad, puesto que series de ellas habían aparecido ya en templos, como en la sala hipóstila del padre de Hatsepsut, Tutmosis I, en Karnak. Pero la disposición de la fila de estatuas de Osiris en Deir el-Bahari era mucho más atractiva. Estaban situadas contra la cara ex-

terna de la pared del santuario más interior, tanto protegiéndolo como —con su volumen— proclamando su presencia a través de la tierra fértil. El tratamiento de las figuras está hecho con una habilidad desacostumbrada. La más somera comparación con las toscas estatuas osiriacas posteriores pone de relieve su gracia. Por otra parte, no se trataba de réplicas mecánicas. En sus rostros, a pesar de las mutilaciones sufridas y de la rigidez hierática, se manifiesta el encanto y la belleza de la reina, con sus grandes ojos y sus labios llenos. Estos detalles muestran el gran esmero puesto en estas obras de escultura arquitectónica, generalmente rutinarias.

Las estatuas libres —escultura exenta— no tenían lugar en Egipto. Una pared se levanta siempre detrás de ellas como una pantalla protectora. En Deir el-Bahari las únicas esculturas exentas eran las esfinges que bordeaban y protegían el camino procesional.

Los bajorrelieves de Deir el-Bahari no están situados en las fachadas de los edificios, sino que se extienden, ocultos, detrás de los dobles peristilos de los patios abiertos. Están realizados con la máxima frescura e, incluso para los cánones de Egipto, respiran un aire de extraña felicidad.

Que la reina Hatsepsut fuera capaz de mantener a raya a Tutmosis III y reducirlo al papel de príncipe consorte, aunque el imperio de éste se extendiera posteriormente desde la Cuarta Catarata del Nilo hasta el Éufrates, es una prueba de la fuerza de carácter que debió poseer la reina. Pero Tutmosis III se tomó cumplida venganza. Solamente años de amargura y de ira contenida pueden explicar el frenesí con que destruyó el santuario de Hatsepsut en su empeño de borrar todo recuerdo de la reina. La figura de Hatsepsut y su nombre fueron suprimidos de casi todos los relieves. Sus esfinges fueron reducidas a pedazos. «La brigada de demolición —escribe Winlock en su apasionante relato de las excavaciones— derribó primero las esfinges y luego las golpeó en las caderas con un gran mazo hasta que se rompieron en pedazos por los puntos más débiles... [Los trozos] fueron llevados al barranco más próximo y arrojados a él» (1942, pág. 77).

La expedición del Metropolitan Museum de Nueva York recuperó muchos fragmentos en escondrijos y grietas y los recompuso cuidadosamente. Como resultado, las colecciones del museo ofrecen ahora una visión única del esplendor de las esculturas de este templo (Hayes, 1959, II, págs. 82-106).

Edificios y naturaleza

Todo en el templo de Hatsepsut revelaba la mano del hombre. Aunque su finalidad como templo conmemorativo estaba plenamente expresada, no se puede concebir un camino procesional más majestuoso. Sus ruinas, incluso hoy, demuestran la maestría con que sus series de rampas y terrazas expresaban el eterno concepto egipcio de un viaje ascendente al más allá. La sensación de relajación lograda en este templo contrasta fuertemente no sólo con el templo vecino de Mentuhotep, sino también con los zigurats escalonados construidos en Mesopotamia medio milenio antes.

Así como Osiris, el dios de la muerte, lleva en sus manos el símbolo de la vida, con su esperanza de una existencia eterna, así este templo funerario estaba

libre del olor de la tumba. El templo hacía pensar en un jardín de placer para la eternidad. Todo era luminoso y alegre, desde la entrada hasta el santuario más alto al que daba frente la fila de figuras osiriacas. No sabemos qué habría plantado en las terrazas, pero crecían árboles en algunas zonas de los patios y a cada lado de la rampa del templo, y «para asegurar el color verde, tan grato al corazón de los egipcios, había dos estanques de papiros poco profundos rodeados por pequeños macizos circulares de flores a cada lado de la rampa que conducía hacia las terrazas superiores» (Winlock, 1942, pág. 90).

En relación con sus grandiosas dimensiones, hay en este templo un refinamiento de los detalles arquitectónicos que recuerda el complejo del templo de Zoser en Saqqara. En contraste con los relieves, los cuales nunca pierden la delicadeza de su factura, la arquitectura egipcia estaba destinada a caer en un gigantismo que fue haciéndose progresivamente evidente en las salas hipóstilas y en los patios de los templos posteriores.

Ni la delicada orquestación de elementos, ni el carácter abierto y envolvente del templo de Deir el-Bahari tuvieron continuación en Egipto. La intención expresada aquí era demasiado precoz para su época, del mismo modo que, en los primitivos comienzos de la arquitectura, el intento hacia el desarrollo del espacio interior quedó aplastado por la evolución dominante de las relaciones externas entre los objetos. Una libertad semejante en la disposición de los peristilos y jardines abiertos sólo reaparece en las villas de recreo romanas plasmadas en los frescos de Pompeya. Pero una vez más fue un impulso efímero. Surgió, sin embargo, de nuevo, y finalmente llegó a su pleno florecimiento en el período barroco. No obstante, hay que guardarse de atribuir cualquier identidad de intención. Percibir un eje horizontal en Deir el-Bahari y derivarlo del templo de Karnak, como se ha hecho, es contrario a la mentalidad egipcia. La relación racional de punto a punto estaba lejos de su manera de pensar. Incluso en el templo de Hatsepsut, el primer patio está rodeado por una alta pared. Como toda la arquitectura egipcia, Deir el-Bahari está orientado verticalmente. Lo que se presenta ante nosotros como planos horizontales son meras pausas en un camino que asciende eternamente. Esto fue expresado con una gran audacia introduciendo una estructura humana admirablemente articulada dentro de la inmensa verticalidad del gran anfiteatro rocoso, que hace que la mirada se eleve hacia sus cumbres. Nadie en el período barroco habría tenido la audacia de enfrentar un edificio directamente con la naturaleza salvaje. La existencia del barroco dependió de la subordinación del entorno al eje horizontal: el plano fue dominante.

Un gran problema humano permanece oculto en la arquitectura del templo de Hatsepsut: cómo enfrentar lo que es informe con lo que tiene forma sin permitir que esto último quede reducido a la insignificancia.

Undécima parte: Supremacía de la vertical

La vertical como directriz

Nuestra actitud hacia la vertical se ha convertido en automática y se halla anclada en el inconsciente. De entre una serie ilimitada de direcciones y ángulos, una fue la elegida y se convirtió en el modelo al cual deben compararse todos los demás y con el cual todos deben mantener alguna relación.

Sin pensarlo, automáticamente organizamos la estructura de un edificio, una escultura, un relieve o una pintura con referencia a su relación con la vertical. No es necesario insistir en que esto no es más que una primera aproximación al fenómeno artístico: nada más que un punto de partida. Aun así, la vertical es el principio organizador. Los estilos cambian pero la vertical permanece.

Podría ser un tema digno de consideración demostrar cómo la supremacía de la vertical perdió algo de su autoridad en la pintura del siglo XIX. Paul Cézanne gustaba de pintar casas cuyas paredes eran oblicuas sin ninguna razón aparente. En sus paisajes frecuentemente se recreó en pintar árboles cuyos troncos se apartan de la vertical; en muchos de sus retratos las cabezas están evidentemente ladeadas fuera de la perpendicular, y en sus figuras sedentes el ángulo recto entre el tronco y los muslos está agrandado de manera que las figuras parecen resbalar de sus asientos: algo que sus contemporáneos nunca aceptarían.

Más interesante, tal vez, sería el estudio del papel de la vertical en nuestro propio tiempo. Incluso la revolución óptica que tuvo lugar alrededor de 1910, la cual excluyó tantas cosas cuando negó la validez general de las leyes de la perspectiva (y con ello el punto de vista estático), se mantuvo firme en lo que se refiere al principio organizador de la vertical. Pero éste sirvió, de cualquier modo, a otros propósitos distintos de los anteriores: fue, en parte, un instrumento en la formación de una nueva concepción del espacio.

Este principio se anunció en los primeros cuadros cubistas de Picasso y Braque, los cuales perforaron el espacio perspectivo horizontal suprimiendo la organización de la pintura en profundidad, inclinándola sobre la vertical y sustrayéndola del campo de la percepción óptica directa. Esto dio lugar a una transparencia e intangibilidad que anunciaban una nueva concepción del espacio. Que la verticalidad proporcionara el andamiaje para la nueva estructuración del espacio es una indicación de los muchos significados que puede tener ese concepto.

No es necesario comparar con detalle una naturaleza muerta realizada en 1929 con una pintura de una mesa de ofrendas del Imperio Medio. Pero ambas tienen en común un método importante de presentación. Una «naturaleza muerta» egipcia —con su pan, fruta y carne como ofrenda a los difuntos— y una naturaleza muerta de Braque —con una botella de vino, una pipa y una guitarra sobre un velador— niegan ambas la profundidad de la perspectiva convirtiendo el plano horizontal en vertical. En algunos aspectos el pintor egipcio emplea esta técnica más radicalmente que el pintor de 1929, quien perseguía otro propósito: representar el espacio en flotación.

Piet Mondrian siempre creyó que sus pinturas, que no tenían ninguna relación con la realidad, eran formas neutras —*formes neutres*—. Pero lo cierto es que las densas bandas negras que mantienen el sutil desequilibrio de cuadrados y rectángulos coloreados están declarando a gritos la relación vertical-horizontal.

Sus formas eran solamente neutras en el sentido en que aceptamos la relación vertical-horizontal como tan evidente que es «neutra». Además, con Mondrian el principio organizador de la vertical sirvió, en su propio estilo, para crear el nuevo concepto del espacio. Mondrian tenía hondas preocupaciones teosóficas y puede ser que, sin saberlo, el simbolismo cósmico se mezclara con sus intenciones, como ocurría en las obras acusadamente geométricas de los egipcios.

En cierta manera, la nueva concepción del espacio se abrió paso al amparo de la vertical, cuyo predominio como principio rector se disolvió lentamente. Las composiciones de Kandinsky lo atestiguan. En sus obras inmediatamente posteriores a 1910, con su disposición de formas completamente libre, la relación vertical-horizontal se funde en un cosmos de múltiples direcciones.

Junto al arte, la ciencia moderna también ha ensanchado nuestro horizonte. Empezamos a sentir la relatividad de la vertical-horizontal, a darnos cuenta de que nuestra relación con la vertical no es evidente ni el único modo posible de representar el orden. Dicha relación no existe ni en las múltiples direcciones espaciales del cosmos ni en el arte primevo. Es un caso especial, como la geometría euclidiana, con la que se halla en relación muy estrecha.

La selección de una dirección dominante es extraña tanto al hombre prehistórico como al primitivo. El hombre prehistórico no dividía el mundo en componentes, aunque llegara a haber algunos elementos prominentes a los que nunca se renunció a través del arte primitivo: significado múltiple y transparencia, falta de interés por el pasado y el futuro y libertad de disposición dentro de un marco de caos aparente.

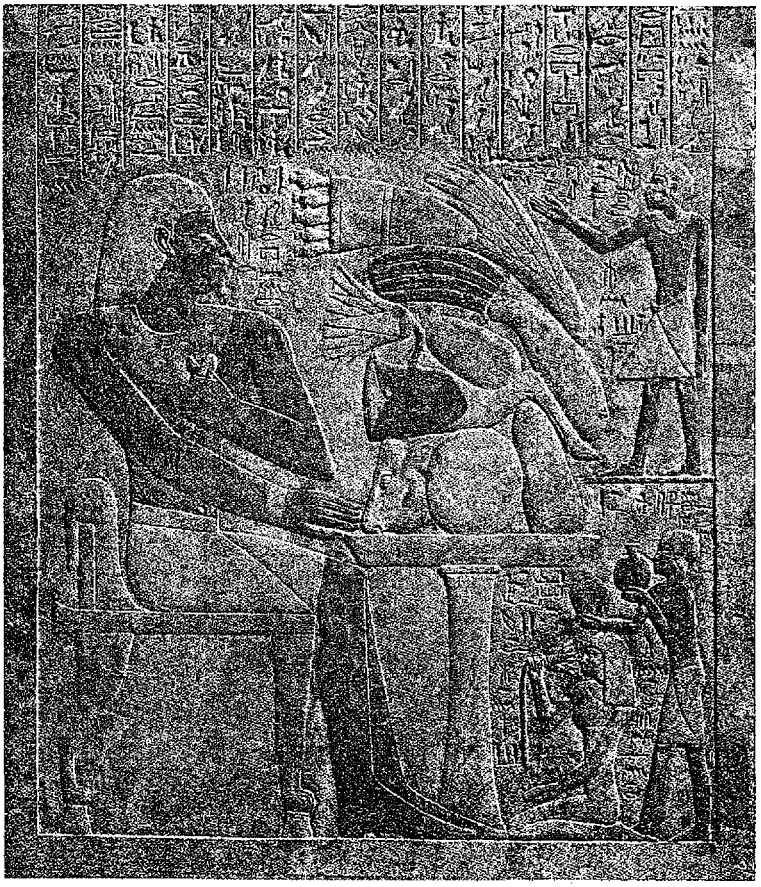
Antes del advenimiento de la historia documentada, se produjo un cambio de largo alcance en la evolución de la visión: a la igualdad de todas las direcciones sucedió la hegemonía de la vertical. Se trataba nada menos que de una revolución óptica.

La verticalidad como principio coordinador no está limitada a las primeras civilizaciones arcaicas, sino que tiene sus raíces en el mundo neolítico precedente. De algún modo este principio rector se relaciona con el proceso evolutivo del espíritu humano. Se da en todo el mundo, aun sin contacto directo entre las diferentes culturas. Es posible, sin embargo, detectar dos etapas entre las civilizaciones primitivas existentes, o como se prefiere decir hoy, civilizaciones «arcaicas». Algunos pueblos primitivos se remiten todavía a las líneas y planos prehistóricos de múltiples direcciones, y otros aceptan la supremacía de la vertical. Entre los primeros están los aborígenes australianos, en alguna medida los pueblos negroides, y también los esquimales. El arte de los indios norteamericanos, sin embargo, está organizado sobre una base vertical-horizontal fuertemente marcada.

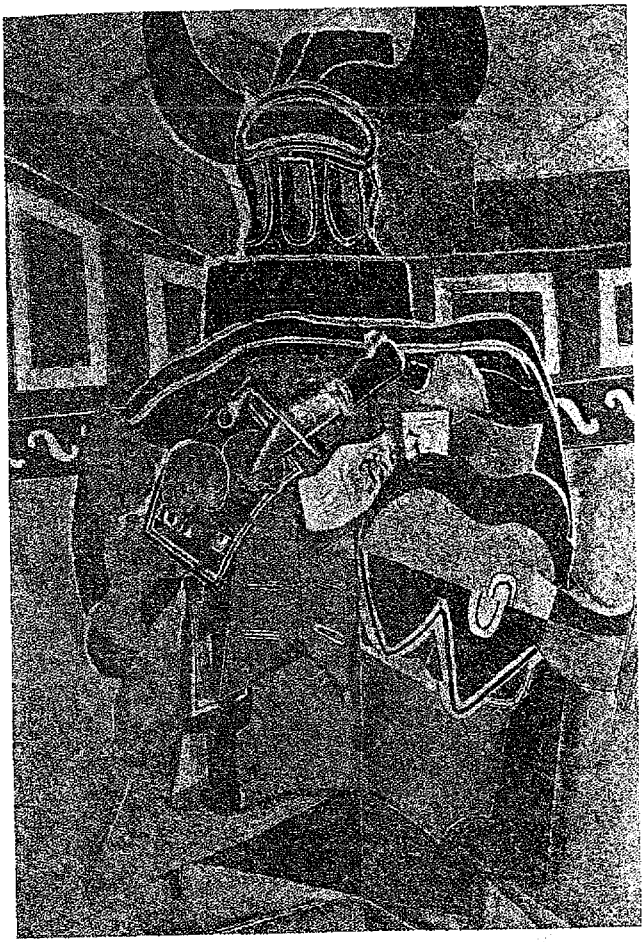
La vertical es la línea del movimiento

Movimiento hacia abajo y movimiento hacia arriba. Dirigido hacia abajo: la plomada, la fuerza de la gravedad, el rayo de sol. Dirigido hacia arriba: un lazo de unión con el cosmos. Las formas que han llegado a expresar esto son la pirámide, el zigurat, los monolitos en forma de estela, el obelisco, el menhir.

La horizontal es la línea de reposo. Denota la base, la igualdad de los platillos de la balanza en equilibrio. La posición horizontal de reposo le fue conferida a Geb, el dios de la tierra egipcio, y la posición vertical al dios del aire, Shu, que le separaba de la diosa del cielo, Nut. La vertical y la horizontal van juntas. Una es el corolario de la otra. No pueden concebirse independientemente.



281. Mesa de ofrendas, en la estela de Mentueser: El plano horizontal de la mesa está llevado a la vertical. Abydos, XII Dinastía.



282. Georges Braque: «Mesa redonda». El plano horizontal está llevado a la vertical. 1929.

La vertical y el pensamiento mitopoyético

El origen de la verticalidad está profundamente anclado en el pensamiento mitopoyético. Es el símbolo más evidente que apunta desde la tierra al cielo: de la existencia terrena a la morada de los dioses.

Las formas adoptadas por la vertical son muy diferentes. Su significado es siempre un vínculo con los poderes invisibles, ya sea la divinidad misma, el tótem, o los antepasados, «los cuales no son aniquilados por la muerte sino que deben ser mantenidos y alimentados... Así los espíritus de los difuntos exigen alimento y cuidado... exigen una morada de alguna clase material que pueda, por así decirlo, hacer las veces del cuerpo perdido... Desde el punto de vista primitivo, la lápida sepulcral estaba llena de fuerza... como residencia de la fuerza procreadora de los espíritus ancestrales» (Kaschnitz-Weinberg, 1944, págs. 12-14).

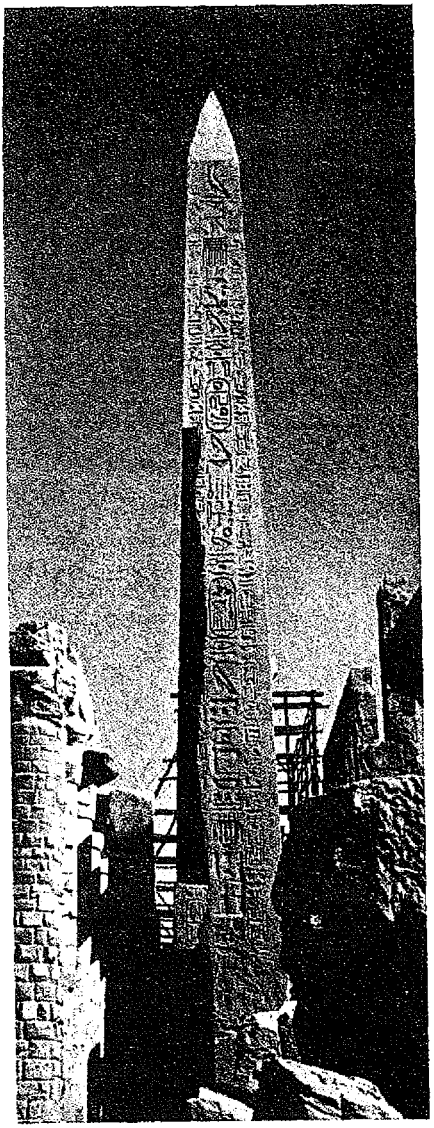
La cultura megalítica, que estuvo relacionada con la aparición de la vertical, no abarcó ningún período específico de tiempo. Fue una etapa de evolución con amplias ramificaciones temporales así como espaciales, que siempre tuvo estrechas relaciones sagradas con los monumentos de piedra. Se difundió a través de casi todo el mundo. No se conoce con certeza su fecha de aparición ni cuántos significados encerraban las piedras verticales. En Palestina, no lejos de donde el río Jordán desemboca en el Mar Muerto, se han hallado las estelas tal vez más antiguas, así como dólmenes (lugares de descanso, en forma de mesa, para los difuntos, colocados sobre bloques verticales). En Africa —Nubia, Etiopía, Madagascar—; en Indonesia; en el Oriente Medio y en el Lejano Oriente; en Sudamérica, incluida la isla de Pascua: en todas partes pueden hallarse vestigios de la cultura megalítica.

En la cumbre de la IV Dinastía, la arquitectura egipcia tuvo indudablemente un carácter megalítico, verbigracia, las columnas monolíticas cuadradas de los templos piramidales de Gizeh, de los cuales solamente el templo del valle de Kefrén transmite todavía la impresión original. Los bloques utilizados para las paredes exteriores se hicieron cada vez más voluminosos, como en el templo de la Esfinge (junto al templo de Kefrén) y en la mastaba de El-Faroun, de Sepseskaf, último rey conocido de la IV Dinastía, que se halla entre Saqqara y Dahshur. Estos gigantescos bloques, así como, en cierta medida, los bloques y revestimientos de las pirámides de la IV Dinastía, tienen rasgos megalíticos, pero refinados y pulidos como corresponde a una civilización muy diferenciada.

En Europa los centros mejor conocidos de la cultura megalítica son Stonehenge y Bretaña. Ambos están rezagados en comparación con el Oriente Próximo, perteneciendo a la primera mitad del segundo milenio a. C. En Bretaña, los menhires (bretón: *men* = piedra, *hir* = alta) llegan hasta unos veinte metros de altura. Estos monolitos verticales se estrechan hacia la parte superior y tienen una sección más o menos cuadrangular. Parece probable que en Francia e Inglaterra los menhires estuvieran relacionados con sacrificios animales o humanos, así como con cultos de la fertilidad.

La costumbre del sacrificio y la invocación, que en Indonesia está todavía hoy relacionada con la erección de menhires, es prueba de la creencia fuertemente arraigada de que la piedra está impregnada de vida.

283. Menhir de Maneurock: Una tosca aguja de piedra afilada hacia arriba, que alcanza casi veinte metros. Quiberon (Bretaña), última parte del segundo milenio a.C.



284. Obelisco de Tutmosis I: Los obeliscos se alzaban en parejas delante de los pilonos de los templos del Imperio Nuevo, excepto el obelisco de Tutmosis III, que se encuentra detrás de la sala de festivales.

Tanto los menhires como los obeliscos son productos del esfuerzo por expresar las inquietudes religiosas por medio de un monolito. Los menhires célticos tuvieron su origen en las tribus bárbaras, y los obeliscos en una civilización muy refinada.

Incluso hoy, las leyendas bretonas atribuyen a ciertos menhires poderes de crecimiento, de vagar hasta los arroyos y producir ruidos y murmullos. James Joyce, que sintió la atracción mágica de estos monumentos, hizo que *Finnegans Wake* —leyenda moderna de la humanidad— se abriera con un diálogo entre dos menhires a los que llamó Mutt y Jute.

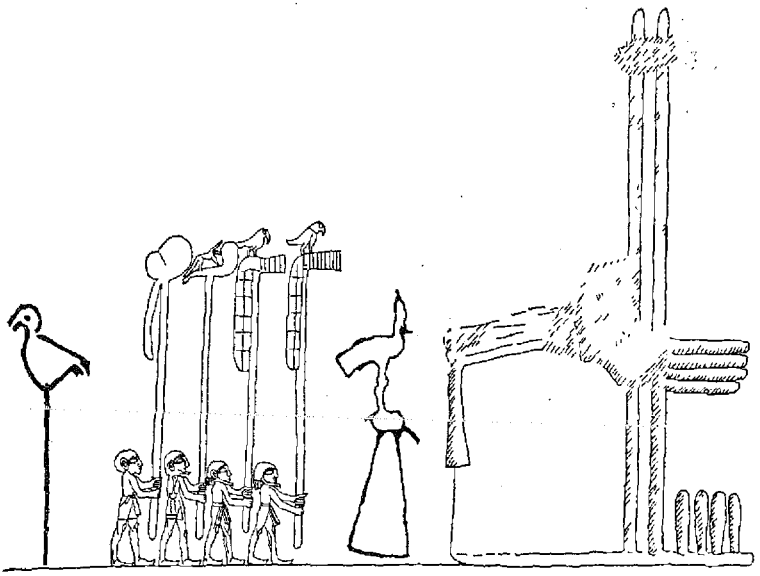
Parecen darse coincidencias entre el arte moderno, la creación popular y los recuerdos prehistóricos dormidos. Una de las tiras cómicas de los periódicos norteamericanos tenía hace tiempo dos personajes llamados Mutt y Jeff, uno alto y otro bajo, que continuamente andan metidos en dificultades. Esto lo sabía sin duda Joyce, cuyo diálogo entre las dos piedras gigantes, Mutt y Jute, está tratado en una especie de lenguaje imaginario expresado por palabras ambiguas a medio formar. Es más elocución que conversación. Las palabras no han llegado a separarse todavía del bloque de piedra, del silencio de la naturaleza. El diálogo empieza así (1939, pág. 16):

«Jute.—Yutah!
Mutt.—Mukk's pleasurad.
Jute.—Are you Jeff?
Mutt.—Somehards.
Jute.—But you are not jeffmute?
Mutt.—Noho. Only an utterer.
Jute.—Whoa? Whoat is the mutter with you?
Mutt.—I became a stun a stummer.
Jute.—What a hauhauhauhaudible thing, to be cause! How, Mutt?»

Cada elocución tiene relaciones y significados internos, tal como debió de tenerlos en las edades primitivas y desde luego los tuvo durante las primeras civilizaciones arcaicas. A Egipto, especialmente, le gustaba dar un significado múltiple a sus signos: una herencia de la prehistoria.

Un ejemplo prehistórico singular del período magdaleniense puede servir para mostrar el vínculo existente entre el hombre y los poderes invisibles: un tótem o fetiche sobre un poste de madera, el pájaro sobre un palo de la cueva de Lascaux (Dordoña). Fue pintado en el lugar más secreto de la cueva, probablemente el santuario destinado al culto, y situado en un contexto sumamente dramático. Esto es muy raro. (La cuestión de la relación entre el hombre con máscara de pájaro y el bisonte herido ha sido debatida antes.) ¿Es el ave sobre el poste un tótem o el símbolo de un clan? Tal vez ambas cosas. En cualquier caso demuestra que el concepto de un protector mágico se remonta muy atrás en la conciencia humana.

En el curso de los milenios, este concepto engendró los distintivos de las cuarenta y dos provincias egipcias o nomos. En el anverso de la paleta votiva de pizarra de Narmer, los estandartes de los nomos egipcios son llevados ante el rey victorioso sobre largos palos: dos halcones (había varios nomos representados por el halcón), Upaout, el chacal, y una vejiga hinchada que se supone representa una placenta. Como en las barcas representadas en la cerámica de Nagada, estos estandartes cuelgan a veces hacia abajo como cintas. Probablemente en el curso de la



285. Usos de la vertical: a) ave sobre un poste de madera, de la cueva de Lascaux, período magdaleniense; b) abanderados de la paleta de Narmer, con distintivos de las provincias; c) fénix (Benou) sobre el monolito (benben) que surgió en primer lugar del caos (fig. 220); dos altos mástiles ante un santuario de la I Dinastía (fig. 239).

evolución política, el fetiche original o tótem de un clan era adoptado por una provincia entera. Como quiera que fuese, estos animales, plantas y (para nosotros) objetos sin vida persistieron como enseñas de los nomos desde el período protohistórico hasta el final de la existencia de Egipto como Estado independiente.

En las paredes rocosas del Wadi-Hammamat —el camino más corto desde el Alto Egipto (Coptos) hasta el mar Rojo— hay grabados prehistóricos tardíos de extrañas barcas de los espíritus con mástiles y emblemas, algunos con cabezas de flecha como los de la cerámica de Nagada (Winkler, 1937, fig. 2).

La imagen de una capilla de Neit, diosa de la fertilidad y de la guerra, se conserva desde la I Dinastía. Otra capilla del mismo período tiene dos mástiles de asombrosa altura situados delante del pequeño edificio. Aquí está expresada, en su forma más primitiva, la verticalidad por los enormes mástiles de las banderas y por los obeliscos que (en su versión monumental definitiva) se alzan delante de los pilonos de los templos del Imperio Nuevo.

Con el principio de la interpretación teológica, las piedras verticales se convirtieron en la montaña primigenia que surgió en primer lugar del caos y que fue identificada con Atón, dios de la creación.

El obelisco fue el resultado final de un proceso de progresiva abstracción geométrica. Su *Urbild*, en forma de un tosco monolito, fue hallado por Moret grabado en el hombro de una estatua arrodillada de la II Dinastía (1935-1938,

pág. 624). Moret era consciente de que este monolito irregular, rematado por una piedra plana, no podía ser identificado con la forma definitiva del obelisco, pero no obstante creía que el obelisco era la culminación de este betilo heliopolitano «en su papel de imagen del sol» (pág. 625). Sus relaciones con el sol —todavía con su forma como de torre pero ahora en tamaño real y en tres dimensiones— aparece en los santuarios solares de la V Dinastía.

En su forma definitiva de esbelta aguja de piedra, ya en el Imperio Nuevo, el obelisco fue considerado por los sucesivos conquistadores de Egipto (persas, romanos y otros hasta Napoleón) como un original y precioso trofeo. Pero cuando los obeliscos fueron erigidos de nuevo en tierras extrañas fue para utilizarlos —como el eje horizontal— de manera completamente diferente. En Egipto se alzaban directamente enfrente de las monumentales paredes de los pilonos. En Europa fueron colocados aislados en el espacio, como postes indicadores para señalar el centro de las plazas urbanas importantes (las plazas de Letrán y San Pedro en Roma, la plaza de la Concordia en París), o al final de largas calles. Nadie utilizó el obelisco con tanta efectividad como el gran planificador de la Roma barroca, el papa Sixto V —1585-1590— (Giedion, 1954, págs. 97-100).

El obelisco, que reduce la materialidad al extremo, es la suprema manifestación de la vertical.

La vertical como principio organizador

La supremacía de la vertical no está siempre relacionada con la acentuación de la altura o con el esfuerzo por conseguirla. Es un principio organizador universal. Desde el reconocimiento de su superioridad sobre todas las demás direcciones, la vertical ha reinado a través de todas las épocas hasta nuestros días.

Los estilos cambian, pero la vertical permanece. Su función como principio organizador no se limita al campo del arte. Desde el comienzo dio origen a combinaciones básicas para la evolución de la ciencia de la geometría, de la cual surgió la percepción del eje, la simetría y la secuencia.

Muchas religiones manifiestan un evidente anhelo por expresar su relación con el cosmos, con el mundo del más allá, por medio de —si se permite la frase— una mirada hacia lo alto transmutada en piedra. La forma que adopta este deseo cambia y evoluciona, desde un simple fetiche sobre un palo, o una modesta estela, hasta la complicada estructura de una pagoda o la filigrana de una aguja gótica.

El anhelo de elevarse hacia lo alto está presente en las pirámides. Se expresa primeramente en la dramática constitución de todo el complejo cuyo punto culminante son las pirámides: templo del valle, calzada ascendente, templo funerario y pirámide. Sin embargo, las dimensiones de las pirámides y la equilibrada relación de su altura con todas las demás dimensiones demuestra que su esfuerzo por la conquista de la altura está equilibrado con todo el complejo. Esto es consecuencia del amor de los egipcios por la simetría y la armonía, el cual fue mantenido diligentemente en todos los campos de la creación artística.

El eje y la simetría

El eje es una línea imaginaria con la cual todos los puntos de una superficie, un volumen o un espacio mantienen una determinada relación, generalmente en el sentido de reflejo especular. Además, un volumen solo o un sistema de volúmenes puede girar a su alrededor (el eje terrestre, los ejes de la rueda).

El arte primevo no conoció el eje. Eternamente en movimiento como los rebaños trashumantes, el arte primevo está muy lejos de todo orden estable y estático.

El eje, una línea intangible, sólo imaginada, nace de la necesidad de establecer relaciones. Pero no relaciones universales: sólo la interdependencia de todas las partes dentro de un sistema a través de su relación con una línea central. El lugar del eje en la ciencia, en la morfología orgánica e inorgánica, o en las relaciones astronómicas está fuera de nuestro campo. Aquí nos referiremos solamente a su función en la evolución del arte. La simetría está relacionada con la axialidad, no concibiéndose una sin la otra. Dos figuras se hallan simétricamente relacionadas con un eje central cuando están organizadas punto por punto en relación a él y cuando las líneas que unen los puntos correspondientes forman ángulos rectos con dicho eje.

Una forma es simétrica cuando sus dos mitades, a derecha e izquierda del eje, se cubrirían una a otra si se superpusieran. Esto se llama simetría bilateral. Cada mitad es el espejo de la otra. La imagen especular, que tuvo unos comienzos vacilantes, se convirtió en ley esencial de la escultura y la arquitectura en los albores de la historia. Esto comenzó con los primeros edificios monumentales y adquirió una poderosa plenitud orquestal en el alzado de las fachadas de los templos del Imperio Nuevo, con sus altos pilonos, mástiles de banderas, obeliscos y las colosales estatuas sedentes de los soberanos. Todos estos elementos fueron dispuestos en parejas reflejándose mutuamente, mientras que la alta puerta central resaltaba y acentuaba el eje.

Hoy la ciencia ha dado a la idea de simetría una perspectiva más amplia que antes. Dicha idea se aplica como principio clasificatorio al mundo de los fenómenos. Un cristalógrafo ha descrito la simetría como «reguladora del conocimiento. Con esto queremos decir que el hombre reconoce y percibe el mundo a través de la clave de la simetría» (Engelhardt, 1949, pág. 210).

En matemáticas, en botánica, en zoología, en cristalografía y en estructura atómica —tanto en el campo orgánico como en el inorgánico— la simetría es aceptada como principio organizador. La fisicoquímica ha distinguido catorce modelos diferentes de simetría, y las matemáticas incluso más. La fuerza del interés científico por el tema puede verse en la serie de artículos de *Studium Generale* (1949, págs. 203-278) en donde científicos muy conocidos describen el papel de la simetría en sus respectivos campos de conocimiento.

Los matemáticos son los que han utilizado con mayor firmeza el concepto de simetría, al estudiar ese amplio campo de «agrupaciones» que constituye una especie de simetría matemática, como demostró Andreas Speiser (1927, págs. 10-12). Comprensiblemente, los motivos ornamentales proporcionaron casi el único tema de investigación precisa que el arte podía ofrecer a los matemáticos. Speiser

limitó el ornamento a siete categorías de modelos que supuestamente comprendían todas las posibilidades; sin embargo, períodos tales como el gótico tardío y el rococó se le escaparon de las manos.

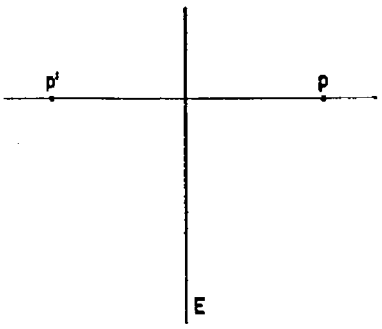
El concepto más universal de simetría fue expresado por el matemático Hermann Weyl en sus conferencias de Princeton (1952). Weyl no persiguió simplemente la ornamentación sino que intentó penetrar en el campo del arte en general. Puede imaginarse lo difícil que resultaba expresar esto matemáticamente. Weyl tuvo también cuidado de no meterse en las afiligranadas clasificaciones tan caras a los actuales investigadores de la simetría. Se ciñó a las tres categorías principales de simetría que ya se conocían, pero las dio un significado más profundo.

La *simetría bilateral* es la forma que más interesa a los matemáticos. Weyl sigue los pasos de «la estricta simetría bilateral o heráldica» desde Sumer hasta las épocas griega y cristiana (págs. 5-24). Esta simetría especular es la forma de simetría de más reciente aparición y fue relativamente poco utilizada en las primeras civilizaciones arcaicas. Sin embargo, en nuestro pensamiento casi se identifica con el concepto total de simetría.

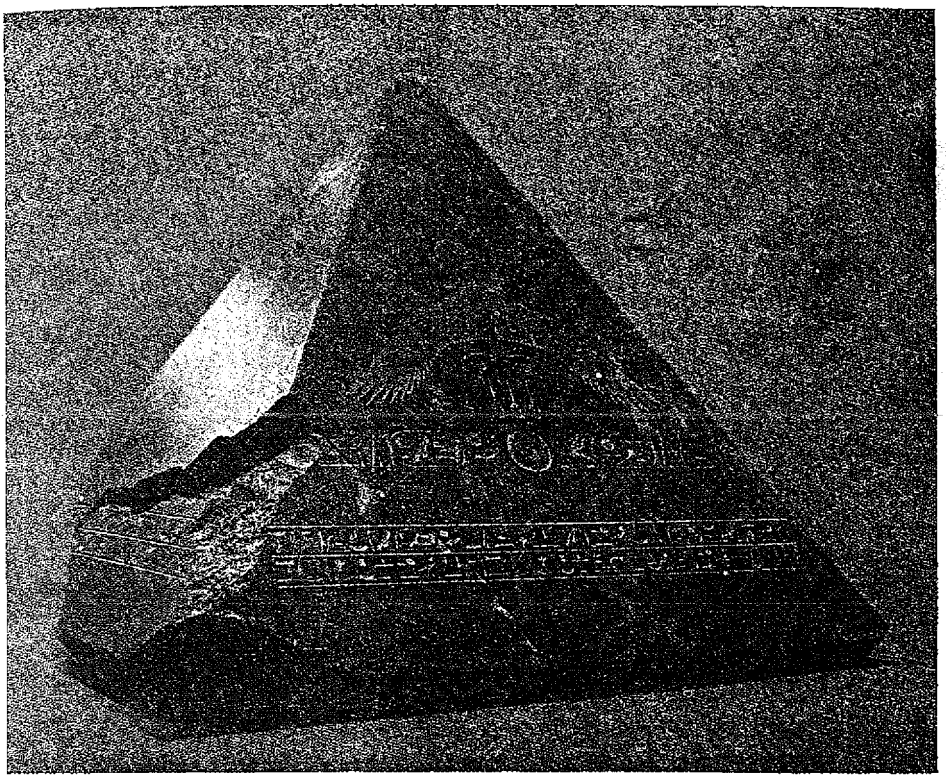
La *simetría traslativa* resulta de la repetición rítmica de las formas, y es con mucho el modelo más antiguo, remontándose, como demostraremos, a la prehistoria. Surge del desplazamiento horizontal de una forma dada, como en una ornamentación lineal, cuando el motivo se repite una y otra vez. Para lo que aquí nos interesa parece mejor utilizar el término «serie». Es el medio más importante de crear un orden compositivo.

La *simetría rotativa* se produce cuando un motivo gira conforme a un cierto ángulo antes de repetirse: 60, 90, 180 grados. Apareció también antes que la simetría bilateral, aunque su uso es más limitado. Fue utilizada muy eficazmente en la cerámica del cuarto milenio, un período de transición de la prehistoria a la historia.

Desde el comienzo mismo, Weyl reconoció la naturaleza de la simetría como una relación de equilibrio. «*Ebenmass* equivale en alemán a la simetría griega; lleva también la connotación de 'medida media'... La imagen del equilibrio proporciona un vínculo natural con el segundo sentido en que la palabra simetría se emplea en los tiempos modernos: *simetría bilateral*, la simetría de izquierda y derecha, la cual es... estrictamente geométrica y, en contraste con la vaga noción de simetría tratada antes, un concepto absolutamente preciso» (págs. 3-4).



286. La simetría axial o bilateral surge del uso de la vertical como principio de organización. Todo objeto posee un reflejo especular a cada lado de un eje imaginario. «El reflejo en E [el eje] es aquella aplicación del espacio sobre sí mismo, S:p → p', que lleva al punto imaginario p a su imagen especular p' con respecto a E» (Weyl, 1952, págs. 4-5).

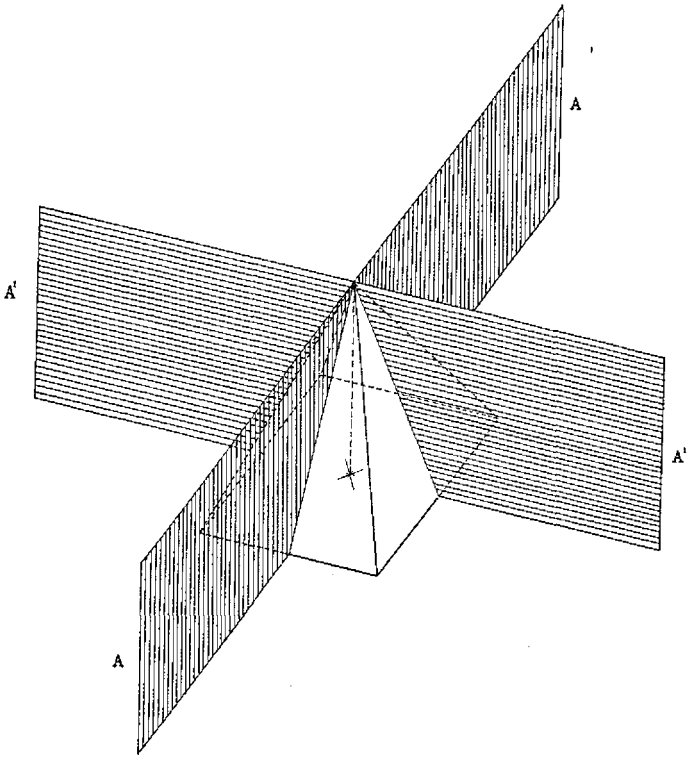


287. Piramidión de Amenemes III. El material de este piramidión, basalto gris indestructible, subraya la idea de eternidad. Todas las líneas y superficies ascienden eternamente hacia un solo punto. Procedente del yacimiento de la pirámide de Amenemes en Dahshur, Imperio Medio.

Eje y simetría en la arquitectura

Con el advenimiento de la arquitectura —volúmenes formados por la mano del hombre— hace su aparición el eje vertical y en seguida se convierte en el principio organizador sin rival. La grandeza y pureza con que fue expresado en las pirámides jamás fueron alcanzadas en períodos posteriores.

Intangible, pero omnipotente, el eje vertical asciende desde el centro del cuadrado de la base hasta la cúspide. La pirámide, simultáneamente «tumba del rey y templo del gran dios» (Spiegel, 1953, pág. 285, pár. 425), es el lugar en el cual el dios, el rey y el *ka* —esa idea curiosa y ambivalente— se funden entre sí. Es el comienzo de la escalera hasta el cielo por la que asciende el rey-dios. En el piramidión, la cúspide de la pirámide, todas las líneas y todas las superficies convergen en un solo punto, precipitándose hacia él sin pausa, sin desviación, desde su



288. Pirámide y planos medianos: El eje de una pirámide puede extenderse para formar planos medianos atravesando su cúspide. Un par de tales planos es cortado diagonalmente a través de los ángulos. El otro par (AA - A^1 A^1) es cortado en ángulos rectos con la base, directamente en la orientación este-oeste y norte-sur de la pirámide.

principio. Aquí llegan a unificarse con el eje vertical, cuya altura da la clave de las relaciones internas de la estructura piramidal.

De entre más de ochenta pirámides, sólo se conserva una cúspide con una inscripción: el piramidión del rey Amenemes III, que fue hallado tendido en el lado oriental de su pirámide en Dahshur. Está hecho de «basalto indestructible» (Schäfer, 1904, pág. 84); cada lado de la base mide 1,85 metros y su altura es de 1,40 metros. El piramidión coronaba una pirámide revestida con piedra caliza sobre un núcleo interior de ladrillo. Nos hallamos aquí en el declive del Imperio Medio (alrededor de 1800 a. C.), al final de la edad de la construcción de pirámides. El sutil tratamiento dado al relieve del hermoso disco solar alado en esta oscura cúspide de granito recuerda el alto nivel artístico de la joyería del Imperio Medio. La inscripción de la cara oriental reza: «Abierto es el semblante del rey Amenemes, él ve al 'Señor del horizonte' (el dios solar) cuando cruza los cielos» *(ibíd.)*.

Este monumento indestructible no estaba más destinado a los ojos de los mortales que las estatuas de los dioses en la oscuridad de la cella. Nadie podía leer desde el suelo esta pequeña inscripción. Aquí empezaba el contacto con la eternidad: conversar con Dios.

En el imponente complejo de Zoser en Saqqara puede verse cuán vacilantemente se introdujo el uso de la simetría axial en los comienzos de la III Dinastía. Su única entrada está situada, del todo asimétricamente, en el extremo sudeste de un muro exterior de 550 metros. Esta pequeña entrada conduce directamente, a través de un peristilo cubierto, al gran patio interior, el cual se extiende lateralmente desde él, y luego hacia la pirámide escalonada que de nuevo está situada al lado del eje de todo el complejo y no sobre él. Esta unión de estructuras fuertemente verticales y rectangulares en armonía asimétrica puede seguirse incluso en los detalles.

En la IV Dinastía el eje apareció, plenamente determinado, en los templos de las pirámides. En ningún otro monumento de los que quedan aparece esta característica con la misma fuerza que en el plano del templo del valle de Kefrén. Aquí se revela una obra maestra del sistema de simetría dominante alrededor de un eje central. Las entradas separadas correspondientes al Alto y Bajo Egipto están situadas simétricamente alrededor de este eje y, siguiendo el *leitmotiv* de la doble entrada, unos corredores pequeños y grandes se desarrollan simétricamente, y en solemne orquestación componen el nuevo concepto de axialidad.

El eje y la simetría habían aparecido ya como principio rector de la más antigua arquitectura monumental: el templo sumerio. Parece haber sido mucho más difícil organizar un complejo entero sobre un eje horizontal rígido, lo cual era aparentemente contrario a la orientación interna de las primeras civilizaciones. En la mayoría de los casos fue evitado, como en el templo del valle de Kefrén, que llevaba lateralmente a la calzada ascendente, y este oscuro corredor cubierto concluía lateral y oblicuamente en el templo funerario inmediatamente enfrente de la pirámide.

Cuando Ramsés II completó el templo de Amenofis III en Luxor, haciendo frente a las nuevas grandes adiciones con su gran pilono, no continuó racionalmente el eje horizontal establecido por sus antepasados. El nuevo eje se ajustó a consideraciones más sutiles.

Durante el Imperio Nuevo, avenidas de esfinges flanqueaban los caminos sagrados que conducían de un santuario a otro (de Karnak a Luxor, de Karnak al templo de Mut), así como el camino procesional desde Karnak hasta el embarcadero dispuesto en el Nilo para la barca sagrada. Pero el eje horizontal no fue utilizado entonces de la manera que ha llegado a serlo por nosotros, convirtiéndose en una segunda naturaleza desde el período barroco: la manera expresada en los jardines de Versalles, donde la horizontalidad de las perspectivas terrestres ilimitadas simboliza el dominio del monarca sobre el país.

El eje horizontal del templo funerario de Hatsepsut —la construcción axial más afortunada de Egipto— indica el curso ascendente del camino procesional arropado por los riscos rocosos del desierto libio. Su orientación no era terrenal sino que se dirigía hacia una infinitud cósmica.

El plano mediano

El eje puede también desarrollarse en un plano axial que toma la forma automórfica (imagen especular) dividida en dos mitades idénticas. Esta forma de plano es conocida como plano mediano.

Pueden determinarse cuatro planos medianos que pasen por la cúspide de una pirámide. Dichos planos aparecen en el cuadrado de la base como una cruz axial. Un par de estos planos atraviesa las cuatro esquinas de la pirámide; el otro par $(AA' - A^1A^1)$ forma ángulos rectos con los lados de la base. Esta cruz axial es muy importante en la orientación y el significado de la pirámide. Expresa los puntos cardinales —norte, sur, este y oeste— hacia los cuales estaba orientada aquélla. La dirección norte-sur estaba exactamente fijada, en minutos de grado.

La perspectiva hacia oriente —hacia el sol y la fértil tierra del Nilo— significaba, al mismo tiempo, la vida. La Esfinge también mira hacia oriente: hacia la salida del sol. La palabra «oeste» significaba para la mentalidad egipcia el reino de la noche y de los muertos. Hacia el oeste se prolongaban el desierto y la ciudad de los muertos a la sombra de la pirámide, con las mastabas de los nobles: seguramente uno de los ejemplos más antiguos de planificación urbana en parrilla. Esto aparece en las encantadoras litografías coloreadas de los monumentales volúmenes de Lepsius (1849-1859), tal vez más impresionantemente aún que en la fotografía de Reisner tomada desde la pirámide de Kefrén. Aquí se abarca toda la enorme extensión: al este de la gran pirámide de Keops la faja de tierra fértil a lo largo del Nilo, y al oeste la ciudad de los muertos y el inmenso desierto que todo lo circunda.

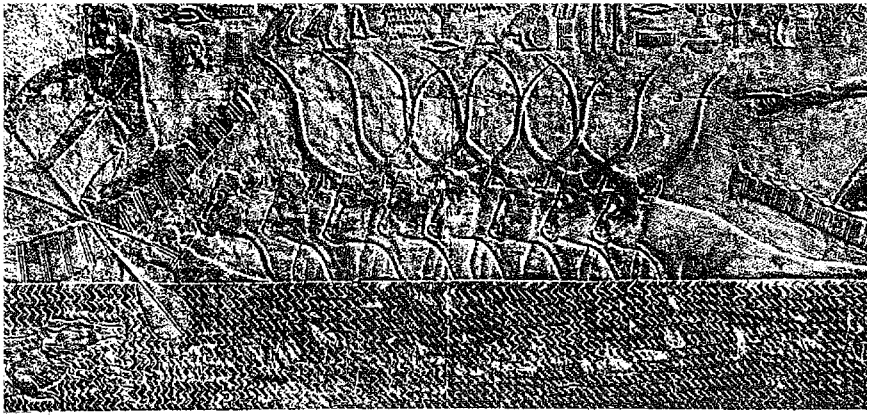
La serie y la vertical

Una serie es una sucesión de elementos idénticos o parecidos a lo largo de un plano o línea horizontales. Los matemáticos, como vimos, consideran la serie como una clase de simetría: simetría traslativa. La simetría traslativa o por desplazamiento, que puede ser continuada hasta el infinito, es, en el sentido artístico, apenas aceptable como simetría. Intervienen impulsos de tiempo y ritmo, y en este caso es mejor hablar de series: por ejemplo, desde el punto de vista artístico es mejor interpretar las columnas repetidas del palacio del Dux de Venecia —uno de los ejemplos de Weyl de simetría traslativa— como una serie.

No merece la pena considerar la serie, en arte, como una clase de simetría. La esencia de una serie traslativa, por contraste con la simetría bilateral, reside en su progresión. Puede continuar sin límites. Implica el factor tiempo. El esfuerzo de los matemáticos por descubrir las limitaciones legítimas del arte se limita a la estructura de la decoración ornamental. Pero la serie, tal como aparece en los relieves egipcios o sumerios, ni deseaba ni permitía la repetición de formas absolutamente idénticas. Tan pronto como entramos en el amplio campo del arte, la teoría matemática de los grupos resulta demasiado estrecha. La definición matemáti-

289. Serie prehistórica de ciervos: Los astados ciervos salen de la superficie rocosa y no nadan por un río, como se ha supuesto. La prehistoria nunca representó el entorno. Lascaux, período magdaleniense.

290. Hueso prehistórico grabado con cabezas de caballos: La repetición en serie servía para reforzar el sortilegio. Período magdaleniense.



291. Serie egipcia de ganado que es conducido a través de un río. Hasta el final de las primeras civilizaciones arcaicas, la simetría dinámica de la serie, sugeridora de movimiento, prevaleció sobre la estática simetría axial. Tumba de Ti, Saqqara, V Dinastía.

ca de la serie como una banda o parte de un plano entre dos líneas paralelas puede ser utilizada en relación con el arte de las civilizaciones arcaicas. Pero es demasiado restringida para el arte primevo, donde no existen líneas paralelas ni superficies planas. Sin embargo, la serie estuvo presente desde los comienzos del arte: es mucho más antigua que la simetría.

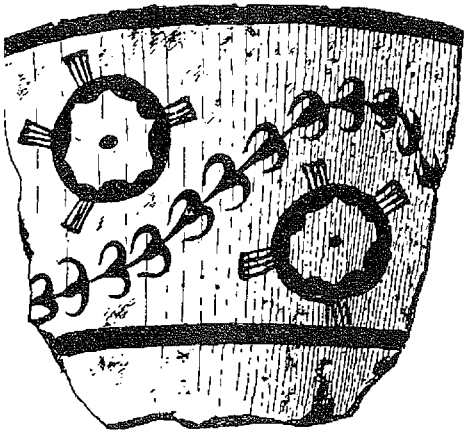
La repetición, esencia de la sucesión serial, fue empleada en el arte del período magdaleniense. Uno de los muchos ejemplos es un hueso tallado que muestra una serie de cabezas de caballos. La repetición en este caso tenía por objeto añadir fuerza al conjuro. Otro ejemplo es un friso, bellamente dibujado, de ciervos, uno detrás de otro, de la cueva de Lascaux. La frecuente explicación de que estos ciervos están cruzando el río cuadra perfectamente con un relieve de la V Dinastía, representando unas vacas, en la tumba de Ti en Saqqara, pero es más bien extraña para la prehistoria.

Cerámica y serie

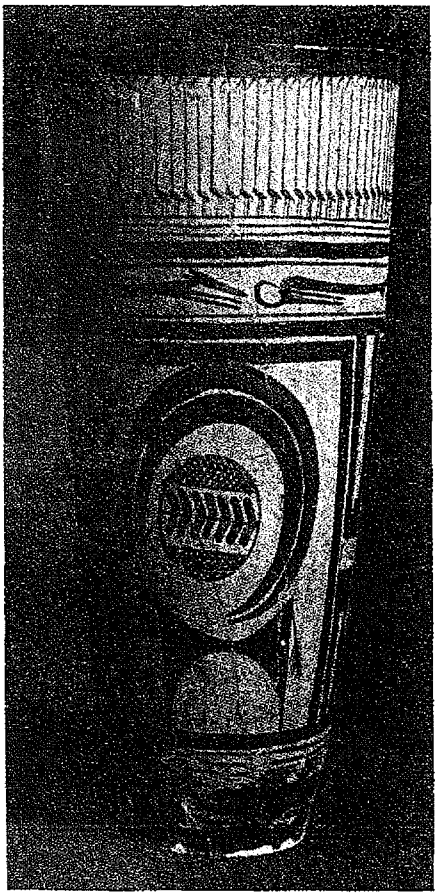
La serie, en el sentido matemático estricto, solamente se desarrollaría después de que la vertical y la horizontal llegaron a ser adoptadas como principio organizador.

La línea de base horizontal está estrechamente relacionada con la evolución de la cerámica pintada. Una detallada investigación del uso de la serie y de la simetría primitivas proporcionaría interesantes ideas. Aquí sólo ofreceremos unas pocas indicaciones.

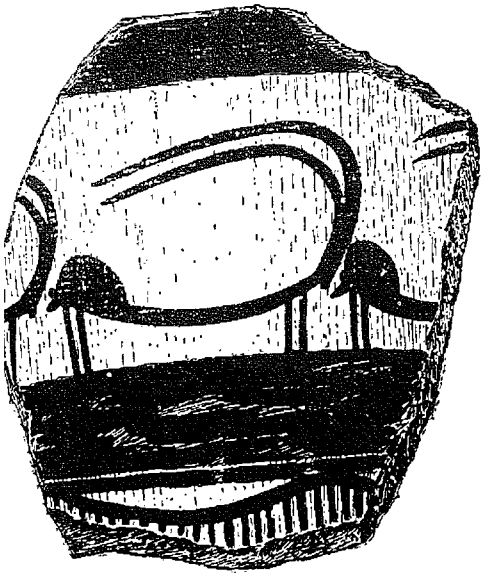
Las formas de las primeras vasijas hechas a mano: ollas, vasos, platos, tinajas, urnas funerarias, etcétera, tenían, naturalmente, simetría bilateral. Cuando el torno de alfarería empezó a utilizarse y la vasija giraba ante los ojos del que la hacía, los dedos se verían casi impulsados a imprimir bandas paralelas o líneas onduladas sobre la vasija que iba surgiendo. Pero no era tan sencillo. Presidiendo la decora-



292. Serie diagonal de cabezas de toros: Pintada en negro sobre una vasija de cerámica verdosa. La serie en curva flota todavía en el espacio, pero los límites horizontales están ya bien marcados. Dos grandes soles acompañan a la cadena ondulante. Procedente de Tepe Kazineh (al sur de Tepe Musyan, Irán), cuarto milenio. Tomado de Gautier y Lampre.



293. Esbelto vaso procedente de Susa: Las bandas horizontales, fuertemente acentuadas, separan zonas diferentes, como en el posterior vaso de Uruk (fig. 64). El centro está reservado para la representación abstracta de un íbice con cuernos inmensos y el cuerpo en forma de reloj de arena. Otros animales más pequeños, también referentes a la resurrección, corren alrededor de la vasija en orden seriado. Susa, estilo I, cuarto milenio.



294. Íbices sobre un fragmento de cerámica amarilla: Figuras pintadas en negro con los cuerpos muy alargados dibujados de un solo trazo, patas cortas y cuernos gigantescos curvados hacia atrás. Tepe Kazineh. Tomado de Gautier y Lampre.

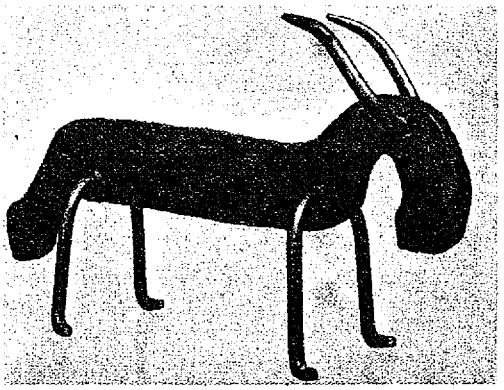
ción de estas vasijas se hallaba un simbólico significado de formas que en su mayor parte se ha perdido para nosotros.

La decoración de la cerámica primitiva es de sentido longitudinal o se halla libremente dispuesta sobre la superficie. En Hassuna, una de las aldeas más primitivas del norte de Mesopotamia, fueron halladas altas vasijas con triángulos grabados (no pintados) colocados verticalmente o al azar.

En la V Parte, al hablar de las relaciones entre arquitectura, cerámica y abstracción, nos referimos a una jarra negra de hacia 3500 a. C., procedente de Tepe Gaura, estrato XIII, no lejos del templo norte, esa joya de la arquitectura más primitiva, y llegábamos a la conclusión de que la abstracción era la raíz común de la arquitectura y la cerámica. La misma vasija puede ser citada aquí como ejemplo por lo que se refiere a su división rítmica mediante grupos repetidos de líneas verticales.

Esta primitiva organización vertical de la superficie fue sustituida progresivamente por series horizontales entre anchas franjas, como en la cerámica de Irán (verbigracia, Sialk) o del norte de Mesopotamia (verbigracia, Nínive). La perfección de las vasijas hechas a mano halladas en las primitivas chozas circulares de piedra del quinto milenio o de principios del cuarto (como en Arpasiyya, en el norte de Mesopotamia) es asombrosa. Su ornamentación abstracta corre en bandas circulares —ajedrezados, series de triángulos, líneas onduladas, puntos, etcétera— alrededor de las vasijas y alrededor de las caras interiores de los cuencos. Todo estaba sometido a la disciplina de las líneas de base horizontales fuertemente marcadas y separadas. En una región que se extiende desde la meseta irania, cerca del mar Caspio, hasta Mesopotamia, se produjo una intensa afluencia artística durante el cuarto milenio, afluencia que se manifiesta por un nuevo material, una nueva técnica y una nueva evolución de las formas. Cuencos de cerámica, vasos y jarras de gran variedad y calidad surgieron aparentemente de la nada.

En la cerámica de los comienzos del cuarto milenio, todavía dentro del período prehistórico, la tendencia hacia la serie estuvo maravillosamente entremezcla-

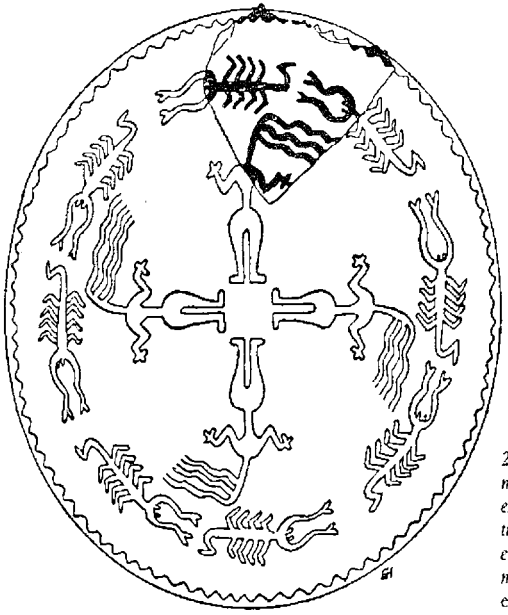


295. Toro plano de hierro forjado: Estos toros de cuerpo alargado y patas cortas, con los cuernos exagerados y la cabeza inclinada hacia abajo para proteger la casa contra los malos espíritus, se colocan todavía encima de los hogares en los pueblos del valle del alto Engadine (Suiza).

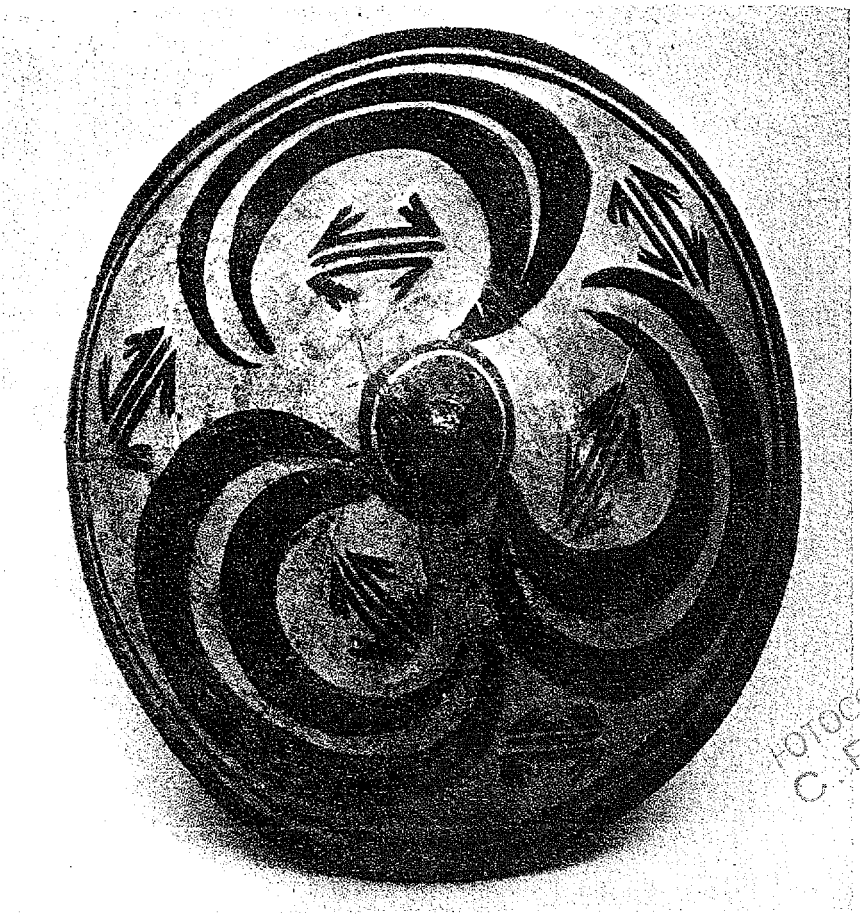
da con un inquieto impulso hacia el movimiento. Formas simbólicas naturalistas y abstractas de significado enigmático se representaban simultáneamente.

Desde la primitiva técnica de grabado de las vasijas de Hassuna hay un gran salto hasta los fragmentos de cerámica pintada hallados en lugares tan remotos como Tepe Musyan, a unos 150 kilómetros al oeste de Susa. En el volumen octavo de las *Mémoires de la délégation en Perse* (Gautier y Lampre, 1905, págs. 59-148) puede encontrarse una excelente descripción de esta evolución poco conocida. Es un raro ejemplo de la repentina eclosión de una nueva riqueza. Una viva fantasía, nunca obstaculizada por el esquematismo, nos ha permitido investigar las etapas de un extenso repertorio de representaciones abstractas: estrellas, plantas, gacelas, íbices, pájaros y hasta insectos son mostrados en formas que van de lo naturalista hasta lo abstracto. Los íbices y las cabras aparecen con largos cuerpos y cuernos gigantescos. «El cuerpo está dibujado con una larga línea curva... los cuernos, curvados hacia atrás, se extienden a todo lo largo del motivo, teniendo el animal las patas cortas y careciendo por completo de gracia» (pág. 123), como recalcan los excavadores.

La abundancia de formas está organizada en una gran variedad de series dibujadas, a veces rectangularmente y a veces diagonalmente, en cadena sobre la superficie. Si consideramos que la cerámica de Hassuna y Tepe Musyan es un trabajo tosco (casi «campesino»), parecería que lugares como Samarra y Susa ya habían adquirido un dominio del dibujo y un planteamiento decisivo de los problemas horizontales-verticales de la serie.



296. Simetría rotativa en un plato de Samarra: mujeres con la cabellera flotante y escorpiones giran en frenética simetría rotativa, pero todavía mantienen la libertad y el espacio indeterminado de los tiempos primevos. Cuarto milenio. Según Braidwood et al.



297. Cuernos surgiendo de un círculo negro: No hay cuerpos. Los cuernos vigorosamente dibujados ocupan la superficie exterior de este cuenco en forma de seno, de manera que todo el espacio está concentrado en la representación que confiere nueva vida y fuerza a los muertos. Irán, cuarto milenio.

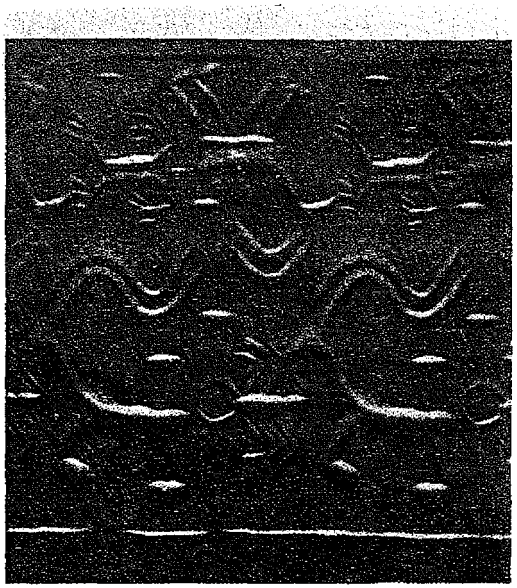
Una vasija de atrevida esbeltez hace su primera aparición. El famoso vaso de Susa del Louvre (estilo I de Susa) está marcado por la búsqueda de la altura. Exhibe una precoz utilización de bandas precisamente separadas. Una pesada línea de base está coronada por el área principal con su versión monumentalmente abstracta de un íbice de grandes cuernos. El animal está enmarcado por fuertes líneas dobles que utilizan el viejo motivo de decoración longitudinal. Encima, nuevamente entre líneas horizontales, hay unos perros (?) cuyos cuerpos están alargados en plena carrera. Se dice que representan perros de caza, pero esto es dudoso. Fi-

nalmente, encima de los perros, y también separada por líneas horizontales, hay una serie de aves abstractas cuyos cuellos están tan estirados verticalmente como los cuerpos de los «perros» lo están horizontalmente.

El centro de este vaso es efectivamente el íbice dentro de su fuerte marco, pero la pieza en su conjunto demuestra que todo el esfuerzo por lograr la sensación de movimiento de los tiempos primevos está todavía vivo. Véase cómo el íbice se mueve hacia la izquierda, los «perros» hacia la derecha y los pájaros nuevamente hacia la izquierda. Como una fluida confusión de diferentes ingredientes vistos separadamente por un instante antes de que se mezclen entre sí, en esta esbelta jarra se advierten formaciones pasadas y futuras sin detrimento alguno de su propia fuerza artística.

No existe, desde luego, ninguna relación directa entre esta cerámica irania y los toros planos, forjados en hierro, con la cabeza inclinada para la defensa contra los malos espíritus, que todavía se colocan sobre el hogar en pueblos del valle del Alto Engadine (Suiza). Pero su cuerpo alargado y las cortas patas son reminiscencias que subsisten en la mente humana.

En los platos prehistóricos de Samarra (Herzfeld, 1930. págs. 11-22) las figuras y los animales se precipitaban en un frenético torbellino: mujeres con la cabellera flotante, escorpiones con la cola oscilando hacia atrás, todo prendido en el movimiento centrífugo del torno de alfarería.



298. Serie de íbices y escorpiones: Los íbices (o cabras) tienen cuerpos abstractos y cuernos enormes. La yuxtaposición invertida como en un espejo es una herencia de los métodos prehistóricos de representación. Impresión de un cilindro-sello del período Dinástico Temprano.

¿Serie? Ninguna línea de base horizontal delimita a estos ocho escorpiones y cuatro mujeres, que todavía contienen la dirección libre de los tiempos primevos y su espacio flotante. Pero su organización centrífuga contiene el germen de la serie y de la simetría rotatoria.

Toda la superficie exterior de un cuenco del cuarto milenio en forma de seno está completamente ocupada por tres pares de cuernos vigorosamente dibujados que brotan como plantas de un oscuro disco en lugar de un cuerpo. Su simetría rotatoria induce un movimiento enérgico simbolizando la vida y la fuerza que confieren a los muertos. Entre ellos hay enigmáticos signos abstractos, probablemente ranas, símbolos de la vida que despierta.

Los cilindros-sellos y la serie

Lo reducido de la superficie aprovechable de un sello y la fragilidad de los materiales empleados —cuarzo, malaquita, cristal— produjo una especie de taquigrafía artística. La evolución mesopotámica se mantuvo hasta el final bajo el sortilegio del cilindro-sello. Su invención se produjo antes que la escritura y estuvo relacionada con la invención de la rueda: el torno de alfarería y la rueda de carro. Todo ello se basaba en la transformación de los pasos discontinuos en un movimiento giratorio continuo. André Breton, el poeta surrealista, consideró este cambio revolucionario desde los movimientos aditivos del andar hasta la rotación sin fin como el descubrimiento más importante de la humanidad.

Se hacía que el cilindro-sello rodara sobre una superficie de arcilla húmeda. Lo que se hallaba grabado en el cilindro-sello podía ser reproducido mecánicamente una y otra vez a voluntad e impreso en la memoria por repetición.

Las impresiones de un cilindro-sello responden a la definición de la serie como un modelo repetido entre dos líneas paralelas. Su composición consistía en primer lugar en la simple repetición de objetos singulares, como se muestra en nuestro ejemplo del período Dinástico Temprano. Pero con el advenimiento de la mitología se llegó a la formación de escenas tales como la lucha de un héroe con dos animales atacantes, frecuentemente representada. En esta escena el héroe forma un eje vertical, con los dos animales dispuestos simétricamente a derecha e izquierda y elevándose para crear una composición triangular.

En unos pocos siglos el sello evolucionó desde la primitiva marca que denotaba la propiedad de una jarra de vino o de aceite hasta los logros más refinados del arte sumerio y, después, del arte de Acad, Babilonia y Asiria. Las escenas múltiples grabadas en los sellos de diferentes períodos proporcionan una excelente visión del fondo religioso y ritual de Mesopotamia. El uso del cilindro-sello se extiende a través del mundo entonces conocido: hasta Egipto, Asia Menor, Creta y Grecia. Dicho uso persistió a través de todos los cambios decisivos en esta zona: a través de los regímenes sumerio y acadio, y de las dinastías de Babilonia y Asiria, casi hasta que Alejandro Magno puso fin al más grande imperio oriental. Pero la importancia y el refinamiento artístico del cilindro-sello en Sumer y Babilonia jamás fueron igualados.

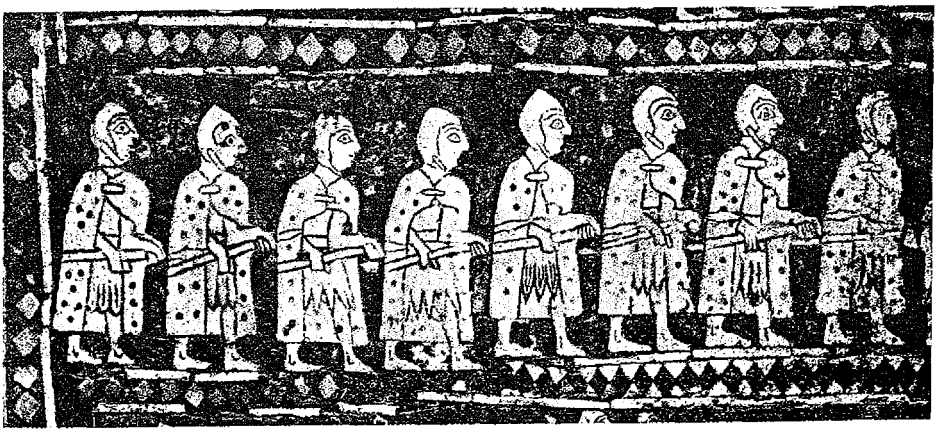
Las series de figuras humanas

La representación de figuras humanas nunca desempeñó un papel importante en la prehistoria, pero pueden hallarse toscas series de seres humanos en huesos grabados de la época magdaleniense, tal como el que reproduce el entierro ritual de un bisonte.

En Mesopotamia hay composiciones seriadas de figuras humanas en casi todos los períodos. Un vaso de alabastro de Uruk, de casi un metro de altura, muestra el uso monumental de la serie en los comienzos del tercer milenio. Aquí la serie dramatiza el festival de Inanna. Como referimos antes, cuatro bandas que van aumentando de tamaño corresponden a la importancia relativa de los temas tratados, así como a la jerarquía recién establecida: plantas, animales y hombres. Las dos bandas inferiores muestran plantas y animales, y las dos superiores una procesión seriada de portadores de ofrendas, culminando en la presentación efectiva de las ofrendas en la banda más ancha, alrededor de la boca del vaso. Puede reconocerse la influencia del cilindro-sello, que desarrolla series continuamente repetidas.

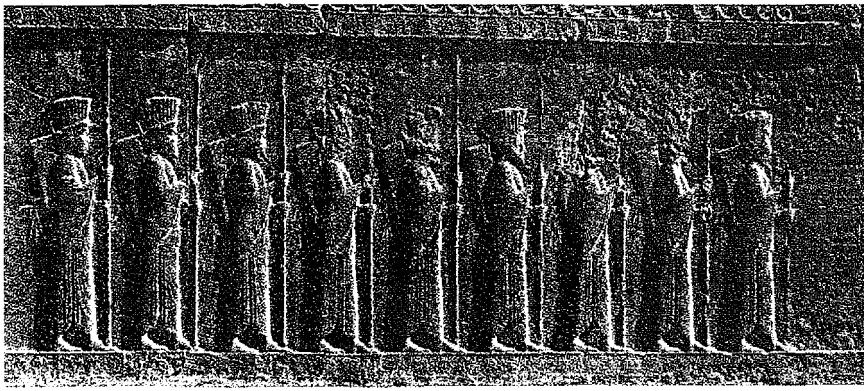
Los dos paneles inclinados hacia dentro del Estandarte de Ur (hacia 2500 a. C.) están divididos cada uno en tres bandas paralelas. En una de éstas se presenta, en rígida serie, una larga fila de soldados cubiertos con capas. La técnica empleada es una taracea policroma de trozos de concha incrustados en betún.

Hay una gran distancia desde la intensidad de las impresiones de los sellos mesopotámicos hastas los enormes relieves que recubren las paredes de los patios, los corredores y los salones del trono de los palacios de los últimos reyes de Asiria. Las figuras se han hecho vacuas, como esas fotografías demasiado ampliadas que pierden toda su intensidad original.



299. Serie de soldados, del estandarte de Ur: Parte de uno de los paneles inclinados, mostrando una serie de soldados con falda y capa, representados con conchas incrustadas en betún; hacia 2500 a.C.

El principio del orden seriado nunca desapareció de esta zona, siendo asumido por los persas, que pusieron fin a la existencia histórica de Mesopotamia. En sus grandes palacios de Persépolis, Darío I y Jerjes construyeron dos escaleras monumentales que conducían desde la sala de audiencias de Darío y el salón del trono de cien columnas de Jerjes hasta las estancias generales del palacio en un nivel más alto. La pared contigua contiene relieves de portadores de tributos, que aparentemente suben las escaleras. Proceden de todas partes del imperio e incluyen, como dos milenios antes, una fila de guardias en estricto orden seriado. Estamos ahora solamente a unas pocas décadas de los jinetes del friso del Partenón. Frankfort hace hincapié en la plasticidad de las figuras mesopotámicas, la cual, junto con el mayor refinamiento de la ropa y otros detalles, revela la mano de los artesanos



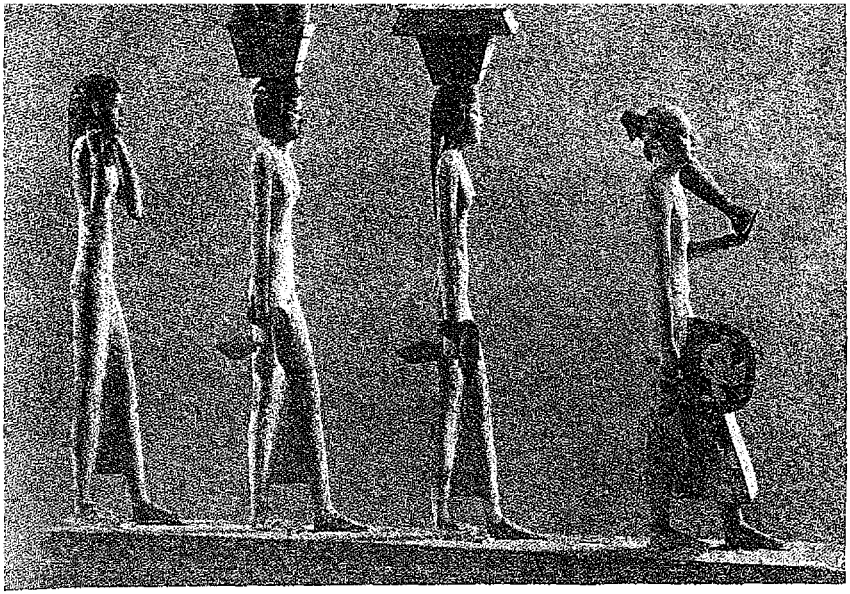
300. Serie de soldados, de Persépolis: Parte de los relieves que cubren las paredes de las escaleras monumentales de los palacios de Darío I y Jerjes. Siglo V a.C.

griegos traídos por Darío de sus campañas jónicas (como se relata en una extensa inscripción llena de presuntuosas autoalabanzas). Pero no hay duda de que las rígidas verticales de los petrificados invitados, que marchan a lo largo de las anchas paredes de la escalera entre bandas de rosetas paralelas y fuertemente definidas, todavía siguen las mismas reglas de composición que los cilindros-sellos de más de dos milenios antes. Pero el primitivo ímpetu artístico de estos últimos, ya oscurecido tiempo atrás, ha llegado ahora a estereotiparse. La importación de artistas de todas las partes del mundo entonces conocido no pudo dar aliento vital a esta rígida pomposidad.

Estamos al final de una época. La actitud sosegada de los jinetes en la fiesta de las Panateneas, una generación más tarde, demuestra que ya había sido recorrida una gran distancia desde la rigidez de los déspotas orientales.

La serie en Egipto

En el período primitivo, Mesopotamia e Irán presentan un campo de información mucho más amplio que Egipto sobre la evolución de la serie. En los



301. Serie egipcia: Modelos de madera de portadores de ofrendas. Tres mujeres, altas y esbeltas, dos de las cuales llevan provisiones y patos vivos, siguen a un vigilante. De una tumba de Deir el-Bersheh, Imperio Medio.

tiempos predinásticos e incluso durante la I y II Dinastías, la energía artística de Egipto se concentró en la perfección de la forma y de la artesanía. Las vasijas egipcias de piedra dura, sin decoración, no tienen réplica en Sumer. Incluso en este período primitivo expresan la exigencia, esencial en el pensamiento egipcio, de una existencia que no termine nunca.

La serie aparece en Egipto en plena expansión en los comienzos de la edad de las pirámides. En las paredes del templo del valle de Snefru, en Dahshur, hay un friso de mujeres jóvenes con los brazos extendidos —todas idénticas— llevando cada una una fuente con dones y el *ankh*. Representan las diferentes provincias de Egipto y solamente pueden distinguirse unas de otras por los emblemas provinciales que hay sobre sus cabezas. Estas esbeltas doncellas constituyen la primera representación egipcia conocida de portadores de ofrendas: un motivo que fue ulteriormente desarrollado durante el Imperio Medio y que nunca desapareció por completo.

Durante la V Dinastía se produjo un magnífico despliegue de escenas en las mastabas de los nobles. Algunas veces un solo episodio cubre una pared entera —Ti cazando en los pantanos— y otras veces una escena se extiende a lo largo de varias bandas paralelas separadas por estrechas franjas. Estos principios se conservaron en los relieves y pinturas del Imperio Medio y del Imperio Nuevo.

El dominio en la representación de la gracia femenina se logra en los modelos de madera primorosamente tallados de portadores de ofrendas en una tumba del Imperio Medio (Deir el-Bersheh). Tres esbeltas doncellas de largas piernas marchan detrás de un capataz. Dos de ellas tienen el brazo derecho pegado al costado,

con un pato vivo debatiéndose en la mano, y llevan en la cabeza una caja con provisiones.

Arquitectura y serie

Mesopotamia

Después de muchas etapas experimentales, las paredes verticales juntándose en ángulos rectos se convierten en los elementos comunes de la casa.

El ladrillo, el primer material de construcción normalizado, atravesaría un período similar de tanteo antes de adquirir la forma común que permaneció inalterada durante cinco mil años. El lugar de origen del ladrillo fue Irán, al final del período prehistórico, pero su verdadera patria fue Mesopotamia y es aquí donde puede seguirse mejor la evolución de su forma típica.

Este país, que inventó la manera de transformar los movimientos discontinuos en rotación mecánica, fabricaba los ladrillos rectangulares en moldes de madera: unas cajas rectangulares en las cuales la arcilla (o la arcilla mezclada con paja) era prensada y luego vaciada y secada al sol.

La forma exacta de paralelepípedo del ladrillo no fue el producto de un cálculo puramente funcional, sino que surgió también de la exigencia de abstracción, racionalizada bajo el hechizo de la vertical. Las paredes verticales compuestas de ladrillos rectangulares formaban grandes superficies planas. ¿Cómo había que organizar estas paredes, especialmente en el caso de los templos, los cuales exigían una distinción monumental?

Las paredes de los primitivos templos mesopotámicos, tanto por dentro como por fuera, eran tratadas como una serie de paneles rehundidos. Sus aristas verticales paralelas daban a la superficie parietal un dibujo de luz y sombra y esa plasticidad de que tanto gustaba el pueblo mesopotámico, tanto en el sur como en el norte. El refinamiento ya logrado en el período de Al'Ubaid hacia 3500 a. C. está indicado en el templo norte de Tepe Gaura XIII y en los templos arcaicos de Uruk. De éstos ya hemos tratado, puesto que en ellos se podía seguir directamente el gradual refinamiento del contrafuerte —primer sistema de refuerzo en la arquitectura— hasta una articulación de paneles remetidos. En los niveles situados bajo el estrato XIII en Tepe Gaura, las paredes de las casas y santuarios están todavía reforzadas por toscos contrafuertes. Una evolución similar podría seguirse en Eridu, en el sur, donde unos sencillos contrafuertes reforzaban las paredes del más antiguo santuario conocido.

En los grandes templos A-D de Uruk puede verse lo complicado que había llegado a ser el modelado de la pared del templo hacia 3000 a. C. Aunque solamente se han conservado fragmentos de sus plantas, éstas muestran que los nichos con paneles estaban rehundidos hasta una gran profundidad. El juego de la luz a lo largo de la serie de huecos debía dar al templo la más impresionante plasticidad.

Este enérgico modelado no evolucionó posteriormente. Hay que saltar a la época de Adriano para hallar tendencias similares. Ni el templo blanco de Uruk ni ningún otro santuario sumerio dio a sus muros una expresión tan fuertemente plástica.

Egipto

En los albores de la historia, el valle del Nilo adoptó la serie mesopotámica de nichos remetidos junto con otras muchas innovaciones. Cuando los reyes Horus conquistaron el Bajo Egipto, las paredes rehundidas de las fachadas de los palacios se habían convertido ya en un símbolo. Del mismo modo, las mastabas y cenotafios de los reyes de la I Dinastía utilizaron el panel rehundido para las superestructuras y las paredes del recinto. Zoser hizo un uso notable del sistema cuando rodeó su complejo funerario de Saqqara con el primer muro alto de piedra caliza.

Solamente con la aparición de la pirámide verdadera en la IV Dinastía hubo una escapada hacia la inmaculada superficie plana, que ya nunca desaparecería de la arquitectura egipcia. La superficie plana resumió sus más profundos anhelos interiores.

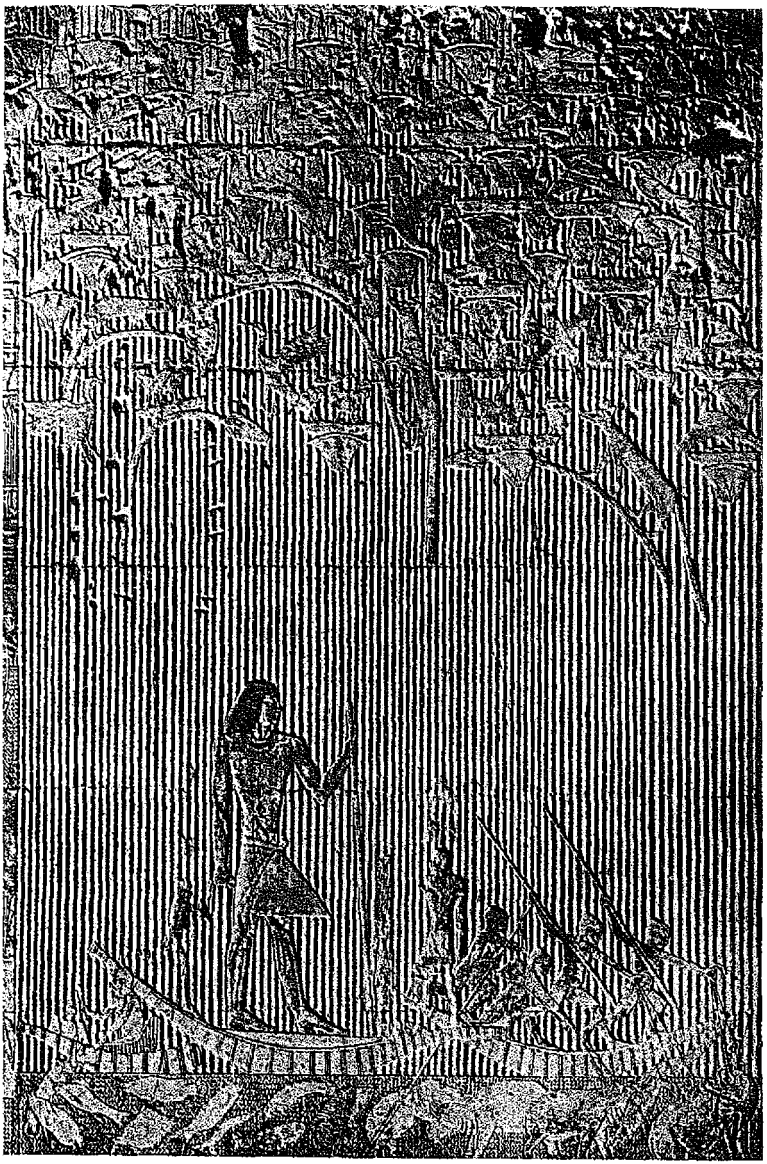
La penetración de la vertical en el arte

La penetración de la vertical en el arte egipcio tuvo caracteres tan fantásticos como los efectos de la representación perspectiva en el Renacimiento. Los relieves y esculturas del Imperio Antiguo estuvieron por completo bajo el hechizo del nuevo descubrimiento. Todo se concentró sobre él.

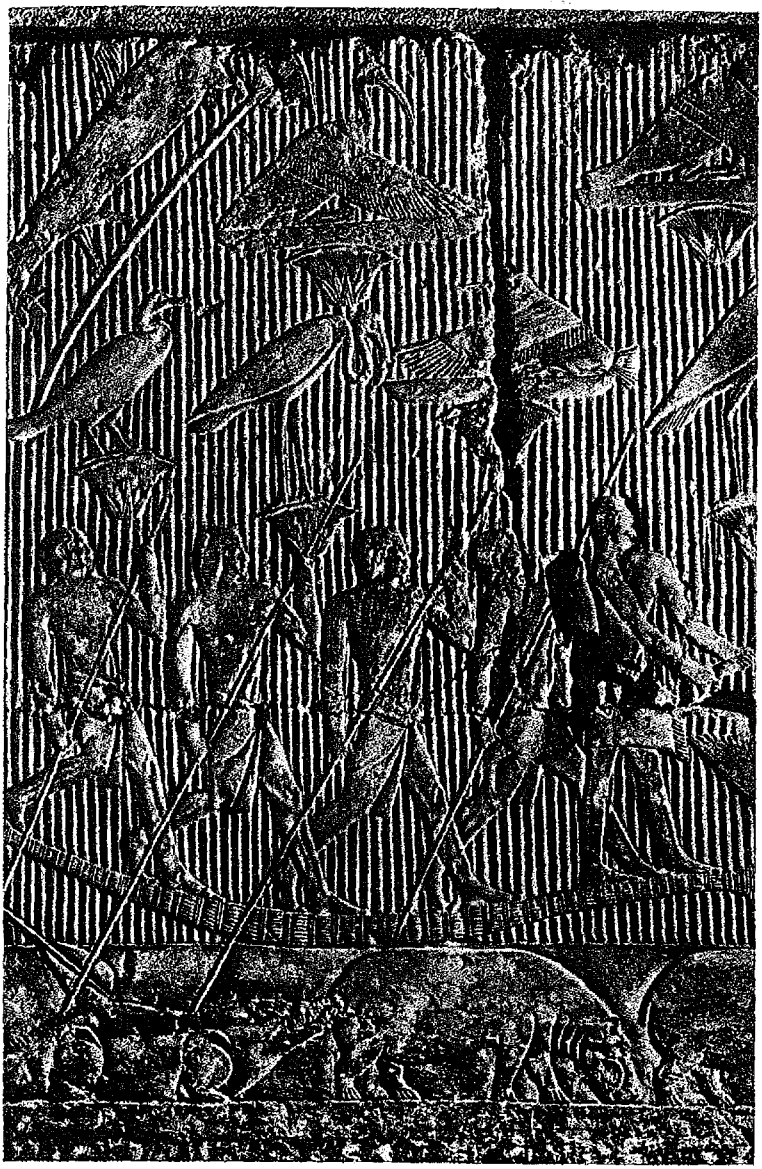
Dos ejemplos ilustran la penetración de la vertical: un relieve de la tumba de Ti, que data de la V Dinastía, y uno de los grupos escultóricos del rey Micerino con dos diosas, de la IV Dinastía.

El relieve: Ti cazando entre las cañas de papiros

Ti, el más alto funcionario de varios reyes, gran terrateniente y sacerdote del templo solar de Niuserre en Abu Gurob, a unos kilómetros al sur de las pirámides de Gizeh, se halla representado en tamaño mayor que el natural, erguido en su barca del Nilo, en posición rigurosamente vertical, como fue regla para la figura humana de pie tanto antes como después. Ti permanece solo como un dios sobre su pequeña barca, el báculo en la mano, mirando cómo sus siervos, armados con lanzas, acosan a un hipopótamo. Las lanzas y sus movimientos están representados en rígidas paralelas. El poder del amo está reflejado por la reducida escala de los siervos. Las tres barcas se deslizan sobre una superficie acuática estrictamente horizontal, indicada, como siempre en las representaciones egipcias, por una serie precisa de zigzags verticales. El fondo está formado por una pared de líneas verticales muy altas y apretadas, como una especie de cartón rizado, pero cuando se mira más de cerca se aprecian sus perfiles triangulares: son las cañas de papiro de los pantanos del Nilo. Como en un relieve similar de la tumba de Mereruka, sólo se deja en libertad a los habitantes del río transparente y a los pájaros situados a lo



302. Ti cazando en los pantanos de papiros: Relieve en la pared norte de la capilla de la tumba de Ti. Todo está regido por la vertical. Saqqara, V Dinastía. Tomado de Steindorff.



303. Navegación a través de los pantanos: Detalle de la tumba de Mereruka. También aquí los tallos de papiro están representados por apretadas líneas verticales. Saqqara, VI Dinastía.

largo del borde superior del relieve, aunque sus nidos en las flores de los papiros están dispuestos en filas casi paralelas. Sólo un camaleón cazador y algunos pájaros en vuelo tienen libertad de dirección. En el Imperio Nuevo, esta libertad primeva se concedía todavía a los pájaros que vuelan a través de los techos de muchas tumbas.

El gesto regio del gran hombre, reforzado por el fondo de tallos verticales, indica que en la estructura del Estado todo tenía ya su posición jerárquica ordenada.

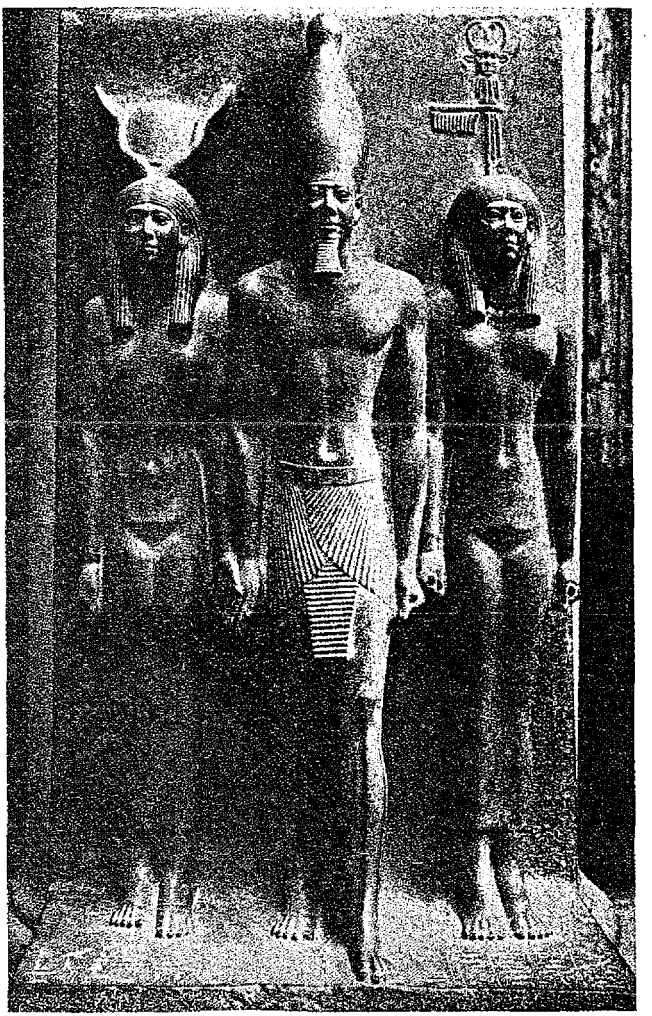
La escultura: Micerino con dos diosas

La vertical también forma un elemento constitutivo de la escultura tridimensional. A través del cuerpo humano pasa un eje vertical con el cual todo parece mágicamente relacionado. Este eje es la línea de intersección de dos planos verticales que se cortan en ángulo recto. Todas las partes del cuerpo están proyectadas en estos planos o son paralelas a ellos. Durante tres milenios se mantuvo el método de composición a través de planos verticales. Uno de los secretos del arte egipcio era que esta extremada disciplina artística nunca se encerró en una rigidez esquemática. Las esculturas y relieves continuaron emanando una gracia que implica aliento de vida e inaccesibilidad al mismo tiempo. Uno de los grupos del rey Micerino acompañado de dos diosas, hallado en el templo del valle perteneciente a su pirámide, indica el uso creciente de la vertical como principio de organización de la escultura exenta.

En lugar de la solitaria oscuridad del rey Zoser entronizado en su *serdab,* o la solemnidad de Kefrén en su templo del valle, tenemos aquí un grupo de tres personas, un grupo humano que parece aproximarse a quien lo mira: el rostro del faraón está fuertemente modelado, como si se dirigiera al espectador más que a la eternidad. En esta tríada el rey está acompañado por Hator y por una figura algo más pequeña que personifica a la diosa de uno de los nomos. Aquí nos interesa exclusivamente el orden compositivo de esta escultura; ya tratamos de los desnudos de Hator de la IV Dinastía como las primeras representaciones de la belleza del cuerpo femenino.

En la base de otro de estos grupos (Museo de Bellas Artes de Boston) hay una inscripción en la cual la diosa Hator dice: «Te he dado todas las buenas ofrendas del sur para siempre» (Smith, 1960, pág. 43). Esto demuestra que la diosa de la provincia de esta tríada sirve al mismo propósito que la representación de los bienes terrenales o que las siervas llevando cestas repletas sobre sus cabezas. Otras tres tríadas halladas con ésta también representaban provincias del Alto Egipto, y no es improbable que originalmente hubiera estatuas representando todos los nomos del Alto y Bajo Egipto. A través de ellas el rey podría recurrir a todo el país para su alimentación después de la muerte» (pág. 46).

En estas tríadas el símbolo adopta la forma antropomorfa; se transforma en relación humana. Los dioses se humanizan y los humanos se convierten en dioses. Hator, que tuvo su origen en el Alto Egipto (Denderah), fue al principio la vaca divina, la madre primigenia, íntimamente relacionada, como siempre, con el rey.



304. Tríada de Micerino: El rey Micerino, la diosa Hator y la diosa de un nomo. Un plano axial vertical que atraviesa el cuerpo humano frontal y lateralmente constituye la base de la composición.

Después de convertirse en diosa del amor mantuvo solamente los últimos vestigios de su forma primeva. En estas tríadas Hator todavía lleva como tocado un par de cuernos con el disco solar entre ellos. Su mano izquierda abierta roza suavemente la mano derecha, también abierta, del rey. La mano derecha, a la manera tradicional, está firmemente apretada. El rey lleva sus distintivos: la corona blanca del Alto Egipto, la barba real y el delantal. Aparte de esto está desnudo. Todo el

grupo tiene un carácter de propósito humano, como si se dirigiera hacia un destino acordado.

El eje vertical proporciona la fuerza interior creadora de cada una de las figuras y el armazón de toda la composición. Los tres ejes verticales de la tríada resultan incluso más fortalecidos por los planos vertical-horizontales que los acompañan. El grupo, tallado en pizarra verde-gris, está liberado del bloque, pero mantiene el plano vertical como fondo dominante, fortalecido por la base horizontal sobre la cual —como siempre— los pies se apoyan planos. Así una llamativa forma en L, sobresaliendo de la pared y el suelo, intensifica la organización vertical-horizontal.

Estas son sólo las primeras manifestaciones primitivas que saltan inmediatamente a la vista. El modo en que la supremacía de la vertical actúa en la evolución interna del arte es más secreto y más complejo; detrás se halla un juego de relaciones que, sin ostentación, se puede llamar universal. Muchos investigadores han sacado a la luz estas relaciones.

El punto de partida es siempre la superficie plana. La vertical engendró el plano: luego, el plano vertical se convirtió en plano pictórico. Nunca, ni antes ni después, el plano vertical había actuado con tal fuerza como elemento constituyente de la composición.

A esto se une la invención de la cuadrícula, que aparece trazada sobre relieves y escultura inacabados y a partir de la cual se desarrollaron relaciones de gran alcance entre formas humanas, proporciones y el sistema egipcio de medida.

La vertical y sus relaciones

En la mentalidad egipcia estaba profundamente arraigado que las consideraciones geométricas y aritméticas no surgían de una situación limitada. En un pasaje raramente citado de la *República*, Platón expuso un concepto de geometría que puede ser considerado completamente egipcio en el sentido de las relaciones entre la geometría y la forma de las pirámides. Platón debió de haber aprendido esto en su condición de griego iniciado en el sacerdocio heliopolitano.

Es cierto que Platón habla en primer lugar del uso práctico de la geometría para trazar un lugar, pero luego aborda su verdadera finalidad: «El objeto real de todo estudio es puro conocimiento... el conocimiento de lo que siempre es y no de algo que alguna vez participa en el ser y desaparece... la geometría es el conocimiento de lo eternamente existente... tiende a atraer el alma a la verdad» (VII 527 B).

Los descubrimientos egipcios, hasta donde podemos deducir de sus escritos y monumentos, estaban basados en relaciones frecuentemente tan sorprendentes como de largo alcance. Esto se manifiesta en el sistema de numeración egipcio. Si un egipcio deseaba expresar una fracción, no utilizaba valores absolutos como hacemos nosotros. En vez de la fracción 6/7, por ejemplo, daba una relación con

la unidad total: 1 —1/7. Los egipcios «solamente hacían uso de fracciones de numerador 1, con la única excepción de 2/3, para la cual tenían un símbolo especial. Cuando dividen una línea en 7, el resultado es *un* séptimo, el cual debe ser considerado más como *calidad* que como *cantidad*. El resto no es 6/7 sino una fracción complementaria (esto es, 1 —1/7). De este modo surge una relación íntima entre el todo original y la parte, entre la parte y su fracción complementaria» (Kielland, 1955, pág. 10).

Los egipcios actuaban de la misma manera cuando tenían que determinar la magnitud de un ángulo, lo cual era de gran importancia, por ejemplo, en el caso de la pirámide. Lo resolvían a través de relaciones, no directamente. En la interpretación de una de las fuentes matemáticas más importantes del Imperio Medio, el *Papiro Rhind*, Borchardt llama la atención sobre el método de determinación de ángulos. El punto de partida es el triángulo rectángulo. Su altura permanece constante (28 dedos), mientras que la base es variable. El ángulo de inclinación se determina por la longitud específica de esta base (1893, págs. 15-16).

Los egipcios, con su agudo sentido visual, se aficionaron a la geometría más fácilmente que a la aritmética. Para ellos todo estaba relacionado con la percepción, de manera completamente distinta que para los pueblos mesopotámicos, inclinados al cálculo. Los babilonios calculaban el ángulo por el número de grados, y la división del círculo estaba relacionada con su sistema de numeración sexagesimal que dividía la hora en 60 minutos y 3.600 segundos (Neugebauer, 1945, pág. 12).

En el método egipcio para establecer el tamaño de un ángulo, se siente la presencia del geómetra en el lugar de construcción colocando su triángulo en todas partes, por ejemplo para controlar la pendiente de la pirámide, mientras que la división babilónica del ángulo en grados está mucho más estrechamente relacionada con el astrónomo que mira las estrellas.

El triángulo rectángulo

La vertical no puede ser concebida aisladamente; viene indicada por auxiliares a los cuales está inseparablemente unida: la horizontal y el ángulo de noventa grados que media entre ambas. De la interdependencia de estos tres componentes surge el triángulo rectángulo, compuesto por una línea vertical y una horizontal con los puntos extremos unidos. Esto encierra un nuevo elemento: *el plano*. Cuando la vertical se impuso a las demás direcciones, el triángulo rectángulo alcanzó la mayor importancia, ejerciendo una atracción casi mágica cuando se descubrieron sus propiedades y leyes ocultas. No es exagerado decir que aquí se halla el punto de partida del pensamiento geométrico.

La imaginación característica de este período vio el triángulo rectángulo no sólo como un fenómeno geométrico con propiedades especiales sobre las cuales el hombre podía meditar, sino como un fenómeno completamente vinculado a una relación espacial mitopoyética.

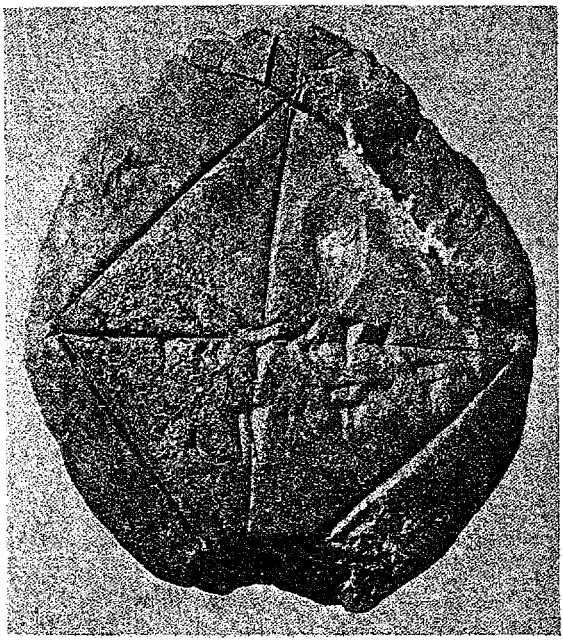
Esto fue expresado por primera vez, en dimensiones asombrosas, por las pirámides, y en ninguna parte más impresionantemente que en la gran pirámide de

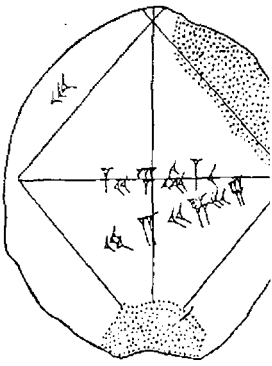
Keops. Ninguna otra pirámide ha intrigado tanto a los investigadores en los últimos ciento cincuenta años. El triángulo rectángulo, decisivo, permanece aquí oculto a los ojos del profano. Sólo aparece cuando un plano perpendicu-
fig. 307 lar al plano cuadrado de la base pasa por la cúspide de la pirámide. Sus catetos están formados por la vertical de la altura de la pirámide *(h)* y la base horizontal que une el punto final de *h* con uno de los lados cuadrados de la planta. El valor práctico de este triángulo se evidenciará inmediatamente: determinó el ángulo de inclinación que rigió la forma y apariencia de la pirámide. Pero también significó mucho más.

El teorema de Pitágoras: relaciones entre líneas y planos

En el campo de las razones geométricas, el salto de las relaciones entre líneas —verbigracia, las proporciones de sus longitudes— a las relaciones entre planos y líneas es particularmente informativo.

El teorema que lleva el nombre de Pitágoras tiene por objeto establecer, en un caso específico, las relaciones entre líneas y planos más allá de las inmediata-





305. Tableta de arcilla con escritura cuneiforme: El teorema pitagórico en Babilonia; hacia 1600 a.C. «Hoy sabemos que todo el conocimiento matemático real que se atribuye a los antiguos filósofos griegos, se tenía muchos siglos antes» (Otto Neugebauer). Con dibujo.

mente apreciables a la vista. Olvidemos por un momento la formulación de este teorema: que en un triángulo rectángulo el cuadrado de la hipotenusa es igual a la suma de los cuadrados de los catetos. En vez de ello aproximémonos a él desde un punto de vista metodológico. Lo que nos interesa es el método de pensamiento expresado aquí, un método que nunca se detiene ante el detalle sino que sigue la pista más allá, dando saltos inesperados para descubrir relaciones: en este caso las relaciones entre los lados del triángulo rectángulo y los cuadrados construidos sobre ellos.

El teorema pitagórico se encuadra en el clima del pensamiento egipcio. Aquí está la relación entre horizontal, vertical y ángulo recto. Aquí está su relación con el cuadrado, que ejerció tan extraordinaria fascinación en la imaginación de la época. El círculo y la curva, aparte de unas cuantas excepciones específicas, están desterrados del arte egipcio. No sabemos mucho acerca del significado mágico que los egipcios atribuían al cuadrado. Su relación con el número cuatro, considerado como el número sagrado, es evidente. En este sentido se convierte en la base poderosa de la pirámide. A partir del triángulo que se forma colocando un plano vertical, paralelo a uno de los lados del cuadrado, de manera que pase por la cúspide de la pirámide, fueron desarrolladas nuevas relaciones. El teorema pitagórico está estrechamente relacionado con la forma y proporciones de la pirámide.

Es significativo que el triángulo rectángulo formara el punto de partida tanto del teorema pitagórico como de la sección áurea. Pero ni uno ni otra es mencionado en el *Papiro Rhind*. Borchardt afirma prudentemente que no hay por qué suponer que los egipcios conocieran el teorema de Pitágoras.

Otto Neugebauer, destacado investigador de las ciencias exactas en las altas civilizaciones de la Antigüedad, va más lejos. Ninguna fuente conocida, según él, habla de la relación entre los cuadrados de los catetos y el de la hipotenusa en forma pitagórica. No obstante, parece muy posible que la geometría egipcia tuviera conciencia del contenido del teorema pitagórico (1934, pág. 122). Más tarde, Neugebauer planteó el caso más radicalmente: «A mí me parece evidente, sin embargo, que las narraciones tradicionales de los descubrimientos hechos por Tales o Pitágoras deben ser descartadas como totalmente ajenas a la historia... Sabemos hoy que todo el conocimiento matemático real que se atribuye a los primeros filósofos griegos se tenía ya muchos siglos antes, aunque sin la evidencia que los acompaña... la cual los matemáticos del siglo IV habrían llamado prueba» (1951, pág. 142). En su lugar existía en Babilonia un interés por los problemas de aproximación. Una pequeña tableta con escritura cuneiforme, actualmente en la colección babilónica de Yale, muestra un cuadro con sus dos diagonales. De las figuras que lo acompañan se deduce que la longitud de las diagonales ($\sqrt{2}$) era calculada a partir de la longitud de los lados. La tableta data de hacia 1600 a. C. Si el teorema de Pitágoras, cuyo conocimiento queda confirmado por esto, era conocido y se hallaba antes oculto en las medidas interrelacionadas de las pirámides, y si había cruzado los límites de Mesopotamia en forma exacta, se deja a la apreciación individual. Teniendo en cuenta las influencias mutuas en el campo artístico entre Mesopotamia y Egipto, no solamente durante las primeras dinastías sino incluso en los tiempos predinásticos, el aislamiento de este conocimiento parece cuando menos improbable.

La sección áurea y la pirámide

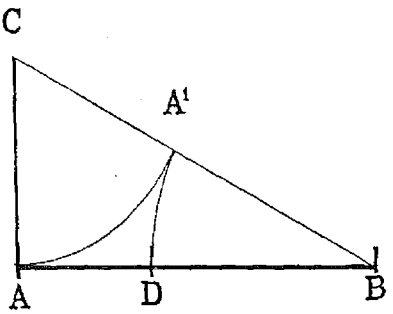
Entre las cualidades ocultas en el triángulo rectángulo están las proporciones de la sección áurea, la cual por sus singulares características es llamada también *divina proportione*. Este nombre se remonta al fraile franciscano Luca Pacioli, quien en 1509 publicó en Venecia un libro titulado *Divina Proportione*. Hasta puede ser que la expresión fuera utilizada por primera vez por su amigo Leonardo da Vinci, con quien Pacioli estuvo en estrecho contacto en Milán en 1496 y 1497 cuando estaba escribiendo su libro y Leonardo estaba pintando *La Última Cena*.

La sección áurea consiste en la división de una línea recta en dos partes desiguales, de tal manera que la parte más pequeña esté en la misma proporción con respecto a la parte más grande que ésta con respecto al total. La parte más pequeña es llamada la menor, la más grande la mayor, y la sección áurea por consiguiente consiste en la siguiente proporción:

$$\text{Menor} : \text{Mayor} = \text{Mayor} : (\text{Menor} + \text{Mayor})$$
$$AD : DB = DB : (AD + DB)$$

Así la sección áurea ofrecía unos medios especiales de mediación entre contrastes, «a causa de que en la sección áurea los dos extremos están relacionados por una proporción intermedia» (Pfeifer, 1885, pág. 190). En esta afirmación aparentemente simple se esconde un juego de relaciones polifacético, así como muchas propiedades únicas que fueron señaladas por el astrónomo del siglo XVII Johannes Kepler, quien utilizó por primera vez los términos «mayor» y «menor».

El uso de Φ para representar la sección áurea fue introducido alrededor de 1910 por un inglés, William Schooling. «El símbolo Φ dado a esta proporción fue elegido en parte... a causa de que es la primera letra del nombre de Fidias, en cuya



306. La sección áurea.

escultura se observa que prevalece esta proporción cuando se miden las distancias entre puntos salientes» (Cook, 1914, pág. 420).

Inmediatamente surge la pregunta: ¿Se debe al uso consciente o inconsciente de la sección áurea el que esta proporción se repita tan frecuentemente en la arquitectura? El gran papel que desempeña en las pirámides excluye el uso acciden-

tal de las leyes de proporción. Es seguro que sus deducciones lógicas fueron establecidas por primera vez por Euclides en el siglo III a. C., en suelo egipcio, en forma de proposiciones, pruebas y conclusiones, y que su utilización práctica es demostrable a través de toda la historia egipcia.

Puede observarse repetidamente que el pensamiento egipcio estaba muy distante de la demostración lógica. Es inútil buscarla en él. Neugebauer subraya que los pitagóricos, cuya dependencia del conocimiento egipcio es bien conocida, mantuvieron la sección áurea en alta estima, pero que ningún egiptólogo la ha hallado jamás mencionada en ningún texto jeroglífico (1934, pág. 122, nota a pie de página). Se han hecho complicadas investigaciones, como por ejemplo las de Else Christie Kielland, que han demostrado con sorprendente penetración que la organización de un relieve, una escultura o un mueble egipcios está basada en la aplicación universal, aunque a menudo complicada, de la sección áurea (1955).

La división de una línea por la sección áurea se logra muy simplemente. Los puntos de partida son la vertical, la horizontal y un triángulo rectángulo cuyo cateto más largo *(AB)* mida el doble de la longitud del más pequeño *(AC)*. Proyectando el cateto más pequeño sobre la hipotenusa, hallamos el punto A^1. Un segundo arco desde el punto A^1 hasta el cateto largo *AB* da el punto D, el cual divide *AB* en la proporción de la sección áurea. El método simple de la división recuerda el método por el cual los egipcios determinaban la inclinación de un ángulo: manteniendo la altura constante y variando la base.

La ausencia de documentos escritos sobre el significado de las pirámides ha dado origen durante este siglo y el pasado a fantásticas teorías de su situación central en el globo, a que se lean en ellas misteriosas profecías y a la suposición de que no eran tumbas sino la cristalización del conocimiento científico de la época. Estas teorías se han basado frecuentemente en mediciones inexactas o incluso falsas. Los volúmenes atractivamente ilustrados por el director del observatorio astronómico de Escocia (Smyth, 1867) están entre los mejor conocidos de tales intentos. Ya han sido suficientemente juzgados.

Fantásticos mensajes astronómicos se han leído también en las dimensiones de la gran pirámide: la afirmación de que la distancia del sol a la tierra es mil millones de veces la altura de la pirámide, o que, desde otra de sus dimensiones, puede descifrarse el radio de la tierra e incluso los cambios climáticos del período glacial (Moreux, 1923).

En 1922 Borchardt decidió ignorar todo lo que no estuviera ya determinado con precisión por pruebas documentales, y Noel F. Wheeler, en 1935, fue incluso más racionalista. Efectivamente es necesario distinguir entre «los disparates periodísticos y las afirmaciones científicas» (pág. 5), pero es dudoso que se pueda rechazar como «fórmulas espeluznantes... fundadas en la misma arena movediza que lo demás» (pág. 293) todo lo que no puede ser medido con un patrón, puesto que hacerlo así contradice la naturaleza del pensamiento egipcio. Cuando, mucho antes, un gran egiptólogo como E. A. W. Budge afirmó que las pirámides fueron construidas «como una *tumba* y nada más que como una tumba» (*ibíd.*, pág. 303), fue una proyección trivial de un punto de vista materialista en un mundo en el cual todo dependía de relaciones, de múltiples significados, de la interpenetración de las esferas del aquí y del más allá.

No podemos descifrar los significados simbólicos implícitos en las dimensiones de la pirámide. Pero algunas veces su presencia se trasluce. Lauer, a pesar de su investigación concienzudamente crítica, no rechaza categóricamente todo aquello de lo cual no existan testimonios documentales. En su capítulo «Théories: Les prétendus secrets des pyramides» selecciona escrupulosamente aquello con respecto a lo cual pueden hallarse relaciones directas (1948, págs. 110-160).

La pirámide y sus planos

Por su propia naturaleza, la sección áurea presenta automáticamente una continuidad de proporciones y una serie infinita de reflejos armónicos. M. Ghyka (1927) ha estudiado las propiedades de la sección áurea más escrupulosamente que ningún otro investigador de hoy. Esa continuidad infinita de proporciones relacionadas puede ser la razón por la cual las líneas y planos de la gran pirámide no dejan de revelar nuevos aspectos de la sección áurea.

En primer lugar vino una relación de los planos conocida desde la Antigüedad. La tradición, aunque no las pruebas directas, afirma que este conocimiento se remonta a Herodoto, quien lo aprendió de los sacerdotes de Heliópolis.

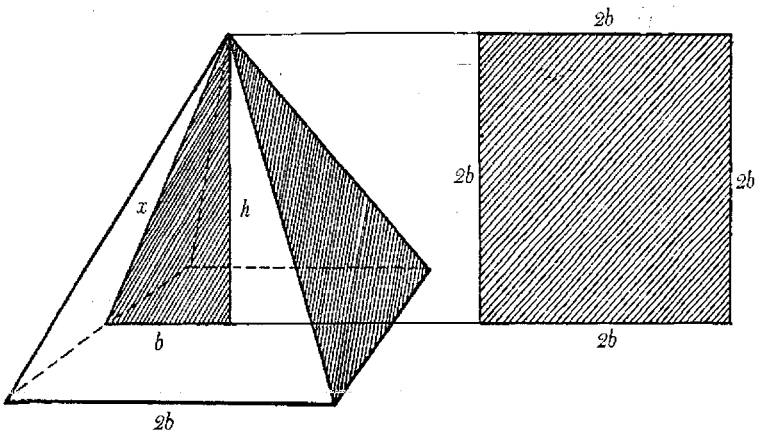
El punto de partida es el triángulo que resulta de cortar la pirámide en dos por una línea paralela a uno de sus lados. Este triángulo forma la superficie de una semisección de la pirámide. La llamada ecuación de Herodoto establece que el cuadrado de la altura (h^2) es igual al área de uno de los triángulos laterales inclinados:

$$h^2 = b\,x$$

Aquí b equivale a la mitad de la base y x a la mediana del triángulo lateral inclinado. Esta aserción contiene, pues una relación entre la altura absoluta de la pirámide, su basé y los lados oblicuos. Por otra parte, por medio de una simple deducción queda claro que en el triángulo mediano los catetos (h altura de la pirámide y b la mitad de la base) se hallan en la relación Φ (Lauer, 1948, pág. 191). Esto fue descubierto, o mejor redescubierto, hacia la mitad del siglo XIX. La línea x de este triángulo, que va desde la mitad de la base hasta la cúspide de la pirámide, establece al mismo tiempo el importante ángulo de elevación.

La sección áurea también rige las relaciones de los planos superficiales efectivos de la pirámide entre sí. La superficie de la base cuadrada está en la misma proporción con respecto a la suma de los cuatro triángulos inclinados que éstos con el área de la superficie total. Lauer señala (pág. 158) que esta relación fue descubierta a partir de la simple observación por K. Kleppisch, un ingeniero de Varsovia.

Aquí sólo podemos aludir someramente a la relaciones de π con la sección áurea. Se ha discutido mucho acerca de hasta qué punto conocían los egipcios el valor de π, la relación entre la circunferencia y el diámetro de un círculo. Es evidente que, con su método de pensamiento, los egipcios lo expresarían solamente con una proporción, en forma de fracción. Puede afirmarse que «la relación del



307. La ecuación de Herodoto ($h^2 = bx$): Esta ecuación expresa la relación entre la altura de la gran pirámide y la superficie de uno de los triángulos que la constituyen. El cuadrado de la altura es igual al área de uno de los triángulos.

perímetro de la base de la gran pirámide con el doble de la altura es igual a π», y también que «la relación del área de la base con el área de la sección mediana es igual a π» (*ibíd.*, pág. 192). Al confirmar esto, Lauer añade la observación de un matemático, Paul Montel, quien dirigió su atención hacia una relación poco notada entre π y Φ:

$$0{,}618 = \frac{1}{\Phi} = \left(\frac{\pi}{4}\right)^2 = \left(\frac{3{,}1416}{4}\right)^2 = 0{,}617$$

cerrando así, puede decirse, la cadena de relaciones *(ibíd.)*.

La escultura y el plano vertical

Los escultores egipcios no realizaban sus obras a partir de la piedra en bruto. Partían de un bloque tallado en forma de prisma, marcando una cuadrícula en sus lados. En la cara frontal del prisma trazaban la figura de frente, y en los lados de perfil, todo ello de acuerdo con el canon. Solamente entonces comenzaba el trabajo escultórico propiamente dicho. Desde el comienzo, el relieve o la estatua quedaban encerrados en un bloque rectangular, en completo contraste con el método de un Lisipo o de un Miguel Angel.

¿A qué reglas obedecía el cincel?

El danés Julius Lange vio que la ley constituyente de la escultura egipcia con-

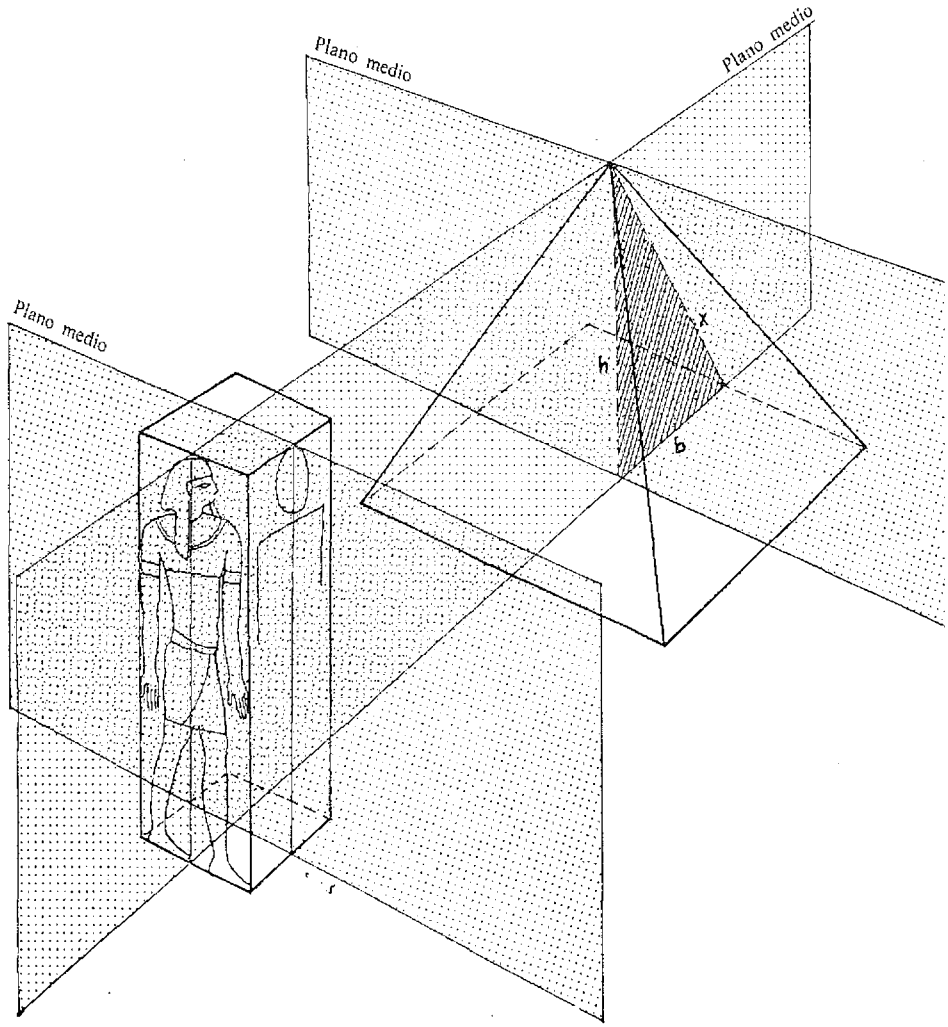
sistía en el mantenimiento incondicional de un plano vertical, que cortaba el cuerpo por el centro. Esta «ley de la frontalidad», como la llamó, era universal, y no estaba permitida ninguna desviación. Lange formuló su ley para la escultura tridimensional como sigue: «Cualquiera que sea la posición que la figura adopte, se cumple la regla de que el plano central, el cual se supone extendido longitudinalmente a través del cuerpo humano, atravesando la columna vertebral, la coronilla, la nariz, el esternón y los órganos sexuales, y que lo corta en dos mitades simétricas, debe mantener su posición en un solo plano y no puede desviarse o inclinarse a un lado u otro» (citado por Kielland, 1955, pág. 23).

Básicamente, la ley de frontalidad establece simplemente que la escultura egipcia está regida por el plano vertical. Pero ¿en qué planos están dispuestos los miembros? ¿Cómo están tratados los brazos y las piernas?

Esto queda contestado en las investigaciones de Schäfer, quien acepta la ley de la frontalidad de Lange. En un lugar incluso llama a esta ley «brillante descubrimiento» (1929, pág. 53), pero se da cuenta de que es incompleta y elabora su concepto de «visión en línea recta» que contrasta con el arte griego del siglo V a. C. «Aunque emplearon métodos completamente diferentes, lo cierto es que estos dibujantes [los egipcios] estaban convencidos de que siempre habían representado la naturaleza lo más fielmente posible. Aunque por supuesto su ojo físico, como cualquier ojo normal, registraba los escorzos, sin embargo descuidan las impresiones aparentes e inconscientemente graban lo que los ojos de la mente les dicen, lo que conocen sobre la naturaleza del cuerpo, o, para no acentuar demasiado el elemento intelectual, lo que vive en su imaginación como realidad. Por consiguiente yo caracterizo su método de dibujo como 'la presentación de la visión directa'» (pág. 34).

El término «visión directa» sirve para subrayar el contraste con la representación en escorzo o (como tal vez lo habrían dicho los egipcios) distorsionada de un objeto, tal como se ofreció en el arte griego y, aproximadamente dos mil años después, fue desarrollada todavía más en la representación perspectiva. La expresión «visión directa» significa que las partes de un objeto están reproducidas en su tamaño y proporciones naturales. En esta representación de «lo que los ojos de la mente dicen» el arte egipcio continúa la tradición primeva, aunque la libertad absoluta de la imaginación creadora está ahora estrictamente limitada a las presentaciones en «visión directa» en planos paralelos verticales predeterminados.

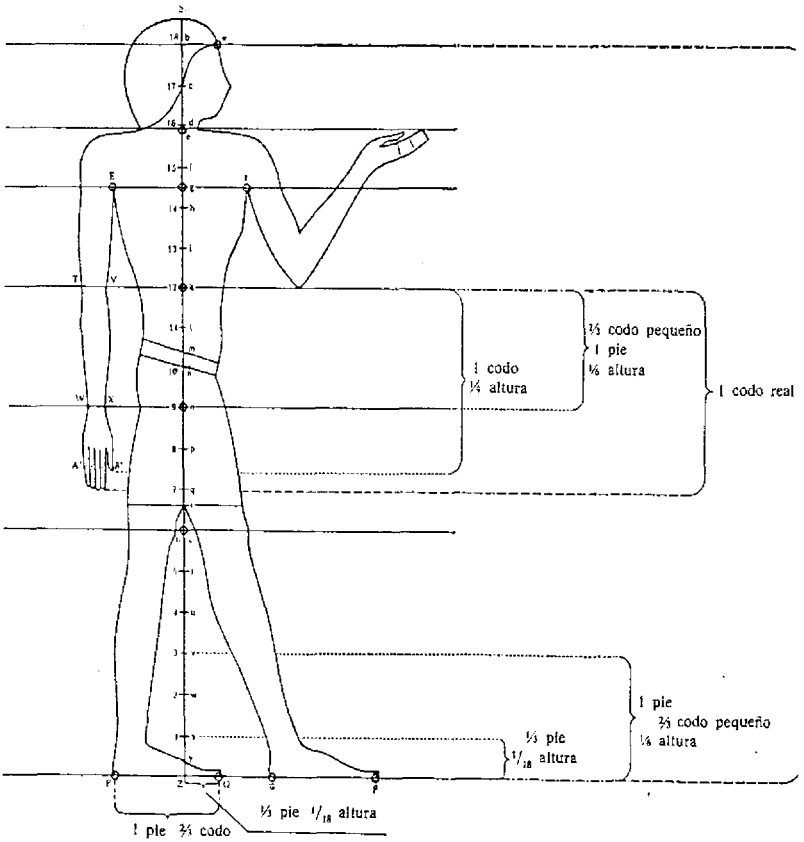
«Consecuentemente —dice Schäfer—, una estatua 'pregriega', esto es, basada en la idea de la 'visión directa', está en conjunto compuesta por cuatro visiones en ángulo recto unas con respecto a otras: una visión anterior y otra posterior directas y dos visiones directas laterales» (pág. 36). Todas las partes —cabeza, torso, brazos y piernas— permanecen dentro de un marco de planos verticales. A partir de esto, Schäfer desarrolla su explicación de la ley de frontalidad de Lange. Los seres humanos y los animales «tienen dos dimensiones decisivas para su percepción. Una se halla en el contorno más amplio de la vista frontal de la cabeza y el torso, y la otra en el contorno más amplio de la vista lateral... Las principales direcciones resultantes, que forman ángulo recto entre sí, excitan la imaginación de los artistas pregriegos hasta tal punto que la composición de sus estatuas, aun cuando reproduzcan el movimiento, está determinada por dos planos que se cruzan entre sí



308. El plano mediano como principio rector de las pirámides y de la escultura egipcias.

en ángulo recto. Su idea de la 'visión directa' de la superficie exterior de las partes del cuerpo y los miembros está relacionada con estos planos y se sirve de ellos, o de planos paralelos invisibles, en un proceso semejante a aquél por el cual se manejan los planos en un relieve» *(ibíd.)*

En otras palabras, el eje vertical imaginario o de una figura de pie se convierte en la línea a lo largo de la cual los dos planos se cruzan en ángulo recto. Así, además de por un plano vertical único, Schäfer reconoce que la figura está también regida por un plano que se halla en ángulo recto con el primero: una especie de intersección axial espacial. La línea de intersección de estos planos en el bloque rectangular original se convierte en el eje de la figura, y se añaden planos paralelos «invisibles» a lo largo de los cuales se disponen los miembros.



309. Canon egipcio de las proporciones humanas: En el Imperio Antiguo el eje vertical pasaba por el ombligo. Las dimensiones y relaciones de las diferentes partes del cuerpo están señaladas por líneas horizontales. Tomado de Iversen, según modelo de Lepsius.

El significado de la cuadrícula

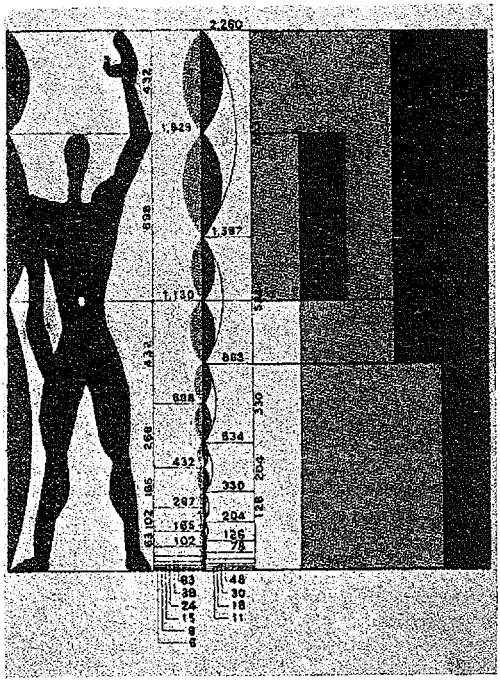
¿Cuál es el significado de la cuadrícula que inventaron los egipcios para la ejecución de sus relieves y esculturas exentas?

Hace más de un siglo, Lepsius, en una expedición a Egipto en 1842-1846, descubrió que las series de figuras alineadas unas encima de otras en una tumba inacabada de Saqqara estaban cubiertas por una cuadrícula. Desde entonces se han hallado más de cien ejemplos similares.

Lepsius no se detuvo en este descubrimiento, advirtiendo que la línea central de la figura individual estaba acentuada como eje vertical y atravesada por seis líneas horizontales. El pie estaba marcado por dos puntos rojos. A partir de estas observaciones, Lepsius desarrolló su canon, es decir, un sistema fijo de proporciones que establecía firmemente las relaciones inalterables entre las diferentes partes del cuerpo humano. Ya en 1849 declaró: «Ahora por primera vez podemos distinguir tajante y claramente las diferentes épocas del arte egipcio, cada cual con su propio carácter personal, que hasta ahora frecuentemente no han sido reconocidas, negándose incluso su existencia... Cito como uno de los detalles más importantes, que en monumentos inacabados yo he hallado numerosos ejemplos de tres diferentes cánones de proporción para el cuerpo humano» (pág. 20). Estos ejemplos proceden de los imperios Antiguo y Medio y, con un cambio completo de los principios de subdivisión, también del Imperio Nuevo. Así Lepsius hizo la «observación fundamental» —como la llama Erik Iversen— de que la relación entre la altura, la longitud de los brazos, la longitud del pie, etcétera, expresaba simultáneamente unidades del sistema de medida egipcio (1955, pág. 11).

La expedición de Lepsius, que por recomendación de Alexander von Humboldt fue patrocinada por el rey de Prusia, dio como frutos un inventario de los monumentos egipcios entonces conocidos, el cual fue publicado en doce grandes volúmenes de grabados, incluyendo algunas magníficas litografías en color y dibujos de detalles (Lepsius, 1849-1859), y un rico tesoro para el Museo de Berlín. Los comentarios basados en las notas y diarios de Lepsius no fueron publicados hasta después de su muerte (ed. Naville, 1897-1913). Más importantes aún fueron las ideas que Lepsius formuló sobre la naturaleza del arte egipcio, ideas que son todavía válidas, o, más bien, cuyo significado ha sido redescubierto hoy. El fue uno de los primeros que investigó las relaciones que se dan en todas las representaciones del cuerpo humano desde el Imperio Antiguo hasta el final de la época egipcia. Poseía algo de la visión universal de los filósofos e historiadores del siglo XVIII que continuó en la primera parte del siglo XIX: Jacob Burckhardt, casi contemporáneo de Lepsius, constituye en eso otro ejemplo. Pero el enfoque materialista de la siguiente generación marginó los hallazgos de Lepsius. Egiptólogos eminentes como Maspero y G. Perrot los desecharon con la cómoda explicación de que la cuadrícula era simplemente el modo más fácil de trasladar un dibujo a la piedra.

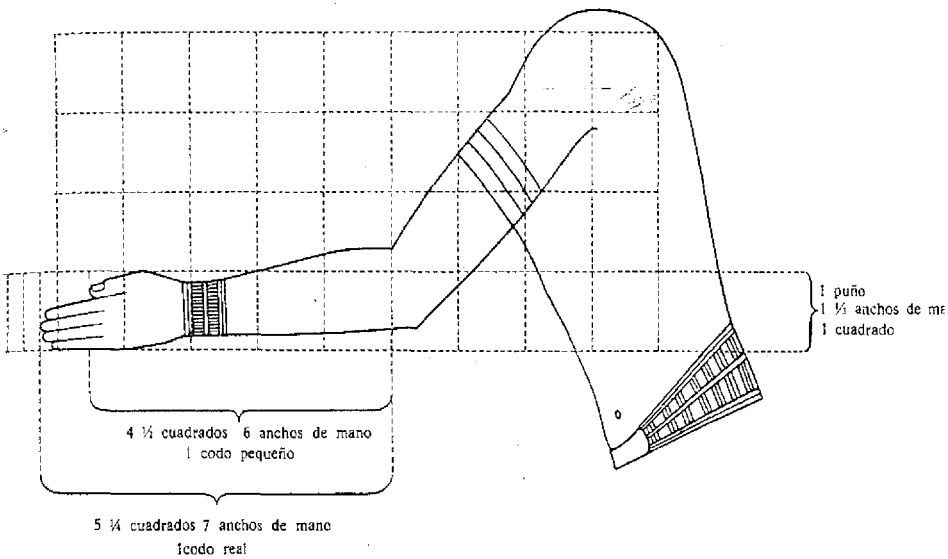
Solamente hoy el profundo significado de las observaciones de Lepsius está siendo reconocido y desarrollado; sólo hoy nos damos cuenta de que las proporciones egipcias del cuerpo humano, el sistema de medida y las divisiones de la cuadrícula estaban estrechamente relacionados. Esta idea sirve a Iversen como



310. El Modulor de Le Corbusier: En 1947 el sistema Modulor de Le Corbusier introdujo de nuevo una relación canónica entre las diferentes partes del cuerpo humano, «universalmente aplicable a la arquitectura y a la mecánica». Tomado de Le Corbusier.

punto de partida para una investigación más definida. Iversen contradice la afirmación de Perrot y Maspero de que la cuadrícula es solamente una *mise aux carreaux:* un instrumento sin otro propósito que facilitar la reproducción de la representación (1955, pág. 54).

Esta observación sobre la cuadriculación *(mise aux carreaux)* no carece de interés, demostrando una vez más cómo incluso destacados investigadores trasladan inconscientemente ciertas costumbres de su propio tiempo a la mentalidad egipcia. La costumbre de los pintores del siglo XIX de facilitar el traslado de un dibujo al lienzo por medio de la cuadrícula tiene poca relación con la egipcia, la cual estaba vinculada a la organización interna del dibujo. La cuadrícula del pintor está basada en premisas completamente diferentes, fáciles de seguir hasta el Renacimiento y la invención de la perspectiva tal como ésta fue establecida por la generación de artistas florentinos de hacia 1400. Indudablemente, el uso de la cuadrícula por los pintores del siglo XIX representa una adulteración de la invención por Leone Battista Alberti de la cuadrícula como «velo óptico»: el dibujante observaba un objeto a través de una tela vertical y transparente cubierta con una red cuadriculada y lo trasladaba a un trozo de papel cuadriculado del mismo modo. Alberto Durero señala este método muy gráficamente en su libro *Underweysung der Messung mit*



311. El puño como módulo egipcio básico: Los lados de la cuadrícula coinciden con el puño (1 1/3 anchos de mano). El «codo real» media siete anchos de mano (5 1/4 cuadros) desde la articulación del codo hasta las puntas de los dedos, y el «codo pequeño» seis anchos de mano (4 1/2 cuadros) desde la articulación del codo hasta la punta del dedo pulgar. Tomado de Iversen, según Lepsius.

dem Zirckel und Richtscheyt (1525), donde, entre otros ejemplos, muestra cómo una figura de mujer reclinada, en máximo escorzo, es trasladada al papel de dibujo utilizando una cuadrícula grabada en cristal. Esta representación de un objeto como aparenta ser, y no como es, contiene en sí la noción de particularidad e individualismo modernos. Ambos son ajenos al canon de relaciones egipcio.

¿Cuáles eran las relaciones entre la cuadrícula egipcia, las proporciones del cuerpo humano y la medida lineal?

El punto de partida era la figura humana de pie. Las unidades de medida en las cuales estaban basadas toda las proporciones eran la mano y el brazo: la parte del cuerpo que produce y crea cosas.

La cuadrícula basada en el ancho de la mano humana

La medida básica de la mano era el puño cerrado. Este aparece una y otra vez en las estatuas egipcias, frecuentemente sujetando un símbolo de autoridad o un amuleto, pero a veces sin ninguno de los dos. El puño se convirtió en el módulo básico para toda proporción. Esto explica la brillante comparación de Iversen de las longitudes laterales de los cuadrados de la cuadrícula con el puño. El puño se mide sobre los nudillos a través de la anchura de la mano, incluyendo el dedo pulgar: «En todas las cuadrículas el puño es igual a la longitud lateral del cuadro»

(1955, pág. 33). Una vez quedó establecida la relación entre la longitud lateral del cuadro y el puño, otras proporciones del cuerpo podían ser expresadas por ella.

Estamos en deuda con Iversen por la idea que ahora tenemos del fondo teórico de la cuadrícula, así como de la relación entre la longitud lateral del cuadro y el puño, la cual era todavía desconocida por Lepsius (1884, pág. 100).

Las dimensiones de la figura humana

El gesto de la mano y el brazo extendidos fue también predilecto del arte egipcio. De esto se derivó la medida lineal decisiva: el codo.

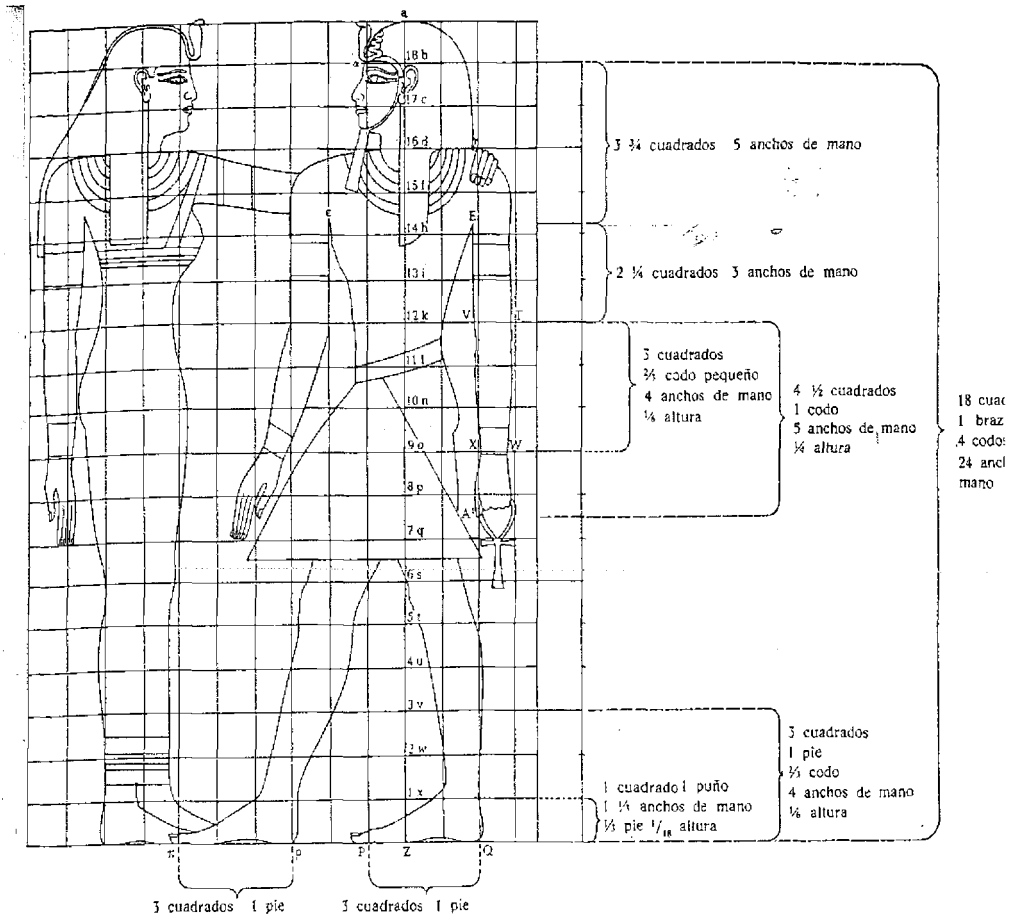
El «codo pequeño» se medía desde el codo hasta el extremo del dedo pulgar. Constaba de seis anchos de mano. Cada ancho de mano se dividía de nuevo en cuatro dedos. La escala se complicaba todavía más por la subdivisión orgánica de los dedos, según Lepsius, en unidades casi tan pequeñas como milímetros. El codo pequeño era la medida lineal normal del «canon antiguo». En el canon antiguo la altura humana se medía desde la planta del pie hasta el punto donde la peluca o lo que cubría la cabeza se unía con la frente.

Tanto el codo pequeño como el ancho de la mano estaban relacionados con los cuadros de la cuadrícula: el codo medía 4 1/2 cuadros y el ancho de mano 3/4. El cuerpo humano en el canon antiguo medía 18 cuadros, esto es, 18 puños, ó 4 codos, ó 6 pies (el pie comprende 3 cuadros), ó 24 anchos de mano. Esto indica el entrelazamiento y la interacción de proporciones, forma y medida lineal.

Conocemos directamente las divisiones del codo pequeño a través de su marca en las varas de medir existentes (una de ellas en el British Museum) y a través de la descripción de Herodoto (II, 149; trad. ingl. 1949, Powell, pág. 181), quien lo identificó en general con el codo griego, el cual tenía parecidas divisiones (Lepsius, 1884, pág. 5).

Junto al codo pequeño estaba también el «codo real» grande, el cual superaba

312. La cuadrícula del Renacimiento: Artista dibujando una mujer reclinada en perspectiva: xilografía de Durero. La cuadrícula que inventó Alberti a comienzos del siglo XV contribuyó a la reproducción en perspectiva de los objetos tal como parecen ser, más que como son.



313. El cuerpo humano y la cuadrícula en Egipto: La cuadrícula servía para establecer las proporciones absolutas del cuerpo humano. Por ejemplo, según el «canon antiguo», el cuerpo humano medía dieciocho cuadros (4 codos pequeños) desde las plantas de los pies hasta la frente. Tomado de Iversen, según Lepsius.

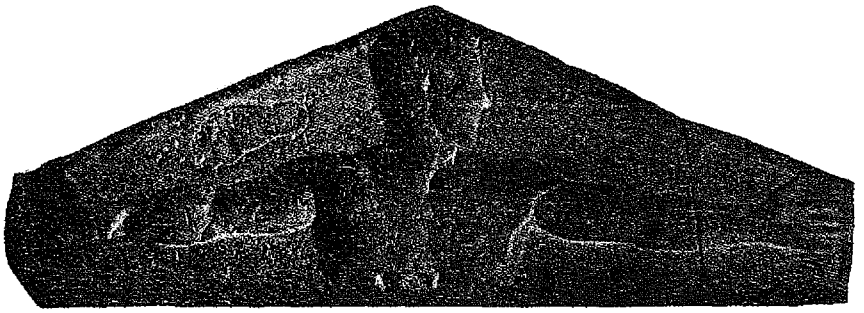
al primero en 1/6, o un ancho de mano, y que se medía desde el codo hasta el extremo del dedo corazón, comprendiendo 7 anchos de mano. «La designación egipcia de este codo como real nos dice ya que es un codo particular, que se distingue del codo ordinario y por consiguiente adicional. Esta adición, no obstante, era muy antigua, más antigua que los primeros monumentos de piedra, porque fue empleada en ellos. Aparte de estar marcado en las varas de medir, se halla exclusivamente en relación con obras de construcción... Yo he explicado el nombre de 'codo real' de este modo, y mantengo que todas las construcciones macizas, principalmente las pirámides y templos, fueron ejecutadas en nombre del rey» (*ibíd.*, pág. 18). Tal vez deba recordarse que los egipcios medían la inclinación de una pendiente empleando una medida común para la vertical y variando la medida horizontal. La vertical tenía siempre 28 dedos de altura, lo cual corresponde exactamente al codo real. El codo real suplantó completamente al codo

pequeño durante el período saíta en los siglos VI y VII a. C. La altura humana fue entonces medida desde la planta del pie hasta los párpados, comprendiendo 21 cuadros ó 4 codos reales.

Como señaló Lepsius, el codo se extendió a través de la cuenca mediterránea y del Oriente Medio. Los griegos tomaron su sistema de medida de los egipcios. «Desde luego, los griegos no adoptaron de los egipcios el codo como patrón de su sistema lineal, sino que establecieron como tal *el pie*, por su propia iniciativa. Entre los egipcios esta medida se presentaba no como un pie sino como dos tercios de codo, o simplemente dos tercios, y permaneció en segundo plano, siendo utilizada raramente» (*ibíd.*, pág. 33).

Parece ser que en Grecia existió también una cierta relación entre el canon artístico y la medida lineal, como puede deducirse del «relieve metrológico» que se conserva en el Ashmolean Museum (Michaelis, 1883, pág. 336). Encima de un hombre con los brazos extendidos hay una huella de pie en raro aislamiento. La distancia entre las puntas de los dedos medios parece estar estrechamente relacionada con las proporciones del canon egipcio del Período Tardío, puesto que equivale a la altura desde la planta del pie hasta los párpados, la cual comprendía cuatro codos reales (Iversen, 1955, pág. 59).

Las relaciones y proporciones del canon se derivan todas de la observación natural, lo mismo que las medidas lineales. En contraste con el metro, el codo es una medida humana que se origina en la relación entre mano, brazo y altura humanas.



314. Relieve metrológico griego: Parte superior del cuerpo de un joven con los brazos extendidos, indicando la longitud normal de una braza. El pie, la medida usada realmente por los griegos, se muestra sobre el brazo derecho: hacia 450 a.C.

Las proporciones en arquitectura

La arquitectura está compuesta tanto por formas inmediatamente visibles como por la relación entre sus elementos, que a partir de varias partes aisladas crea un conjunto integrado. Aquí reside la función de las proporciones.

Un ojo sensible puede a menudo sentir instintivamente cuándo ha sido lograda la unidad entre todas las partes de un edificio: su planta, la forma de los espacios y los elementos plásticos. Pero tal apreciación óptica es algo primitiva y superficial. La interacción de las proporciones es menos visible que las formas y contornos inmediatos.

La pérdida de la capacidad para integrar las partes en un todo comprensible no es simplemente un defecto de nuestra época, sino una deficiencia peligrosa. Sin esa capacidad no podemos alcanzar una civilización en equilibrio. Trasladada a la arquitectura, esta deficiencia aparece en la ausencia de una de sus exigencias básicas: la utilización consciente de las proporciones. Los individualistas equivocados o indisciplinados pueden creer en una regla empírica casual, pero la arquitectura real no puede nacer a menos que todas sus partes estén integradas, así como un edificio no puede levantarse sin que alguien sepa de construcción.

Cualquiera que sea el período anterior que se considere (clásico, medieval, renacentista), se hallará que todos los proyectos en todas sus partes —horizontal, vertical, espacial— estuvieron sometidos a la invisible interacción de las proporciones.

Ninguna arquitectura está más imbuida de las proporciones que la de Egipto, la primera arquitectura de la historia. Una de las razones de esto es que las proporciones estaban entonces inseparablemente unidas con los significados mágicos.

La exigencia egipcia de una unidad envolvente en su imagen conceptual del mundo no podía dejar de aplicarse también a la arquitectura. Dicha exigencia empezó a destacar en la orientación cósmica escrupulosamente esmerada de las grandes pirámides. La ceremonia de «estirar la cuerda» (anudada en intervalos de 3, 4 y 5 hasta formar un triángulo rectángulo) era protagonizada por el propio faraón en la erección de todos los santuarios importantes. El valor concedido a la protección de las esquinas de un edificio se demuestra por los agujeros cuadrados hallados por Winlock en el templo funerario de Mentuhotep en Deir el-Bahari: «En cada una de las cuatro esquinas de la zanja de los cimientos se abría un agujero de unos tres pies cuadrados. En el día señalado —con la asistencia del rey en persona con toda probabilidad— los sacerdotes se acercaban a una esquina del templo y colocaban en el agujero la cabeza, una pata y una costilla de un buey recién sacrificado. Delante colocaban unas hogazas de pan cónicas... platillos llenos de cebada, higos, uvas... pasteles redondos y media docena de diminutas jarras de vino. Todo esto iba sin duda acompañado por oraciones para que el rey, que un día sería enterrado en el templo, nunca sintiera las punzadas del hambre o de la sed» (1942, pág. 51).

El santuario egipcio fue siempre concebido como una unidad y por consiguiente no existen detalles que carezcan de significado. No importa que los templos fueran como organismos en crecimiento. Cada parte que se añadía era integrada en el conjunto mediante el uso del mismo sistema de proporciones. Así

como las proporciones de la figura humana estaban sometidas a una cuadrícula basada en las dimensiones de la mano, todas las proporciones en arquitectura estaban relacionadas con el mismo sistema básico. Esto no contradice el hecho de que las proporciones pudieran ser aplicadas de modos muy diferentes.

Ya antes de 1900, Choisy reconoció el uso en la arquitectura egipcia de los triángulos equiláteros y basados en la sección áurea (1899, I, págs. 51-57).

En la década de 1920, E. Mössel (Mössel, 1926) «descubrió el uso por parte de los arquitectos egipcios de la serie de Fibonacci o Lamé, 1, 2, 3, 5, 8, 13, 21» (Badawy, 1961, pág. 1), que tanto se acerca a las proporciones de la sección áurea. La serie que lleva el nombre de Leonardo Fibonacci, un profesor italiano del siglo XIII, reaparece una y otra vez en las proporciones de la arquitectura egipcia, y puede suponerse sin dificultad que fue ya conocida y utilizada por los egipcios: «Hay que recordar que lo que sabemos sobre las matemáticas y la ciencia de los egipcios es lo que ellos decidieron que supiéramos» (pág. 9). La ciencia se mantenía en secreto y oculta como la estatua de una divinidad.

En la década de 1950, las investigaciones de Badawy y R.A. Schwaller de Lubicz proporcionaron una idea detallada de la organización proporcional de los edificios egipcios. Badawy lo hizo en un trabajo inédito sobre el diseño egipcio antiguo, y Schwaller de Lubicz en tres volúmenes dedicados al estudio pormenorizado de un solo complejo de edificios, el templo de Luxor, titulado *Le Temple de l'homme* (1957).

En una comunicación al XXV Congreso Internacional de Orientalistas celebrado en Moscú, Badawy hizo un resumen de algunas de sus ideas sobre «la relación de las partes con el todo y la interrelación de los diferentes elementos» (manuscrito inédito). Los complejos arquitectónicos egipcios, tales como los grandes templos del Imperio Nuevo, los cuales crecían por adición —añadiéndose partes nuevas delante de las estructuras más antiguas—, siguieron observando exactamente el mismo sistema de proporciones, aun al cabo de varios centenares de años. Badawy describe como «diseño armónico» el sistema basado en la repetición de ciertas dimensiones que se encuentran en la planta y en el alzado, lo cual puede expresarse por un diagrama de construcción que utiliza triángulos isósceles y cuadrados. «Ambos sistemas, el aritmético de Fibonacci y el sistema gráfico de la sección áurea, eran combinados para lograr el diseño armónico en arquitectura, según reglas fijas susceptibles de ser transmitidas como enseñanza sin la ayuda de la escritura.»

En nuestra época muchos arquitectos, todavía imbuidos de un individualismo romántico decimonónico, creen que sus instintos artísticos personales no necesitan el control de ningún sistema de proporciones. Algunos, aunque relativamente pocos, trabajan, como Mies van der Rohe, con un módulo aditivo básico que se repite a lo largo de la estructura. Le Corbusier, como Picasso o Miró, mantiene una relación interna con las experiencias artísticas, la cual hace mucho tiempo que desapareció de las obras del pintor o arquitecto *routinier*. Le Corbusier ha extraído del subconsciente su sistema del Modulor, combinando los sistemas aritmético y geométrico de Fibonacci y la sección áurea adaptada a las dimensiones de la figura humana y, a partir de aquí, aplicándolo a las proporciones arquitectónicas. Ha empleado coherentemente este sistema en su arquitectura.

El codo como base de las proporciones arquitectónicas

Como mencionamos antes, los egipcios inventaron las cuadrículas, basadas en las dimensiones de la mano humana, para establecer las proporciones correctas del cuerpo humano en la pintura, el relieve y la escultura. Las proporciones en la arquitectura estaban basadas en la longitud del antebrazo: el codo. Por consiguiente la arquitectura egipcia es una proyección de las proporciones del cuerpo y los miembros humanos, trasladadas a una escala más grande pero todavía humana. Esto es especialmente válido por lo que se refiere a los grandes templos. El hombre y los artefactos del hombre estaban estrechamente entrelazados.

Badawy se limitó escrupulosamente al uso metodológico de las proporciones conducentes a un «sistema armónico de diseño arquitectónico» (1961), del mismo modo que Iversen siguió el empleo de la cuadrícula para determinar las proporciones del cuerpo humano (1955, pág. 33).

Schwaller de Lubicz acentuó las implicaciones simbólicas inherentes a la organización proporcional del conjunto de un gran templo. El análisis gráfico contenido en su segundo volumen es de una precisión extraordinaria. Puede que no se esté dispuesto a seguirle hasta el punto de comparar el significado de una catedral cristiana con el planteamiento religioso, profundamente diferente, de los egipcios. También se puede ser sumamente cauto a la hora de aceptar la idea de que las diferentes partes del templo de Luxor reflejan diferentes etapas de la evolución humana: de que las proporciones del santuario más interno representan las de un recién nacido o que se pueden hallar las proporciones de un esqueleto adulto en el complejo entero, incluyendo sus últimos añadidos (1957: II, lám. XV; III, págs. 57-62).

Las obras de Schwaller de Lubicz no se encuentran normalmente en la bibliografía de un egiptólogo serio, pero su punto fundamental referente a las relaciones entre el significado simbólico y el uso de las proporciones no puede a la larga ser excluido de una consideración más seria. Su influencia sobre Robichon y Varille, que se interesaron particularmente por las implicaciones cósmicas del templo egipcio, condujo a un mayor refinamiento de las excavaciones egipcias y supuso una contribución a los descuidados estudios del simbolismo que impregna toda la arquitectura egipcia, hasta la colocación de cada piedra.

Duodécima parte:
La primera concepción espacial arquitectónica

La intangibilidad del espacio

Es posible darle límites físicos al espacio, pero por su naturaleza el espacio es ilimitado e intangible. El espacio se disuelve en la oscuridad y se evapora en el infinito. Para hacerse visible, el espacio tiene que adquirir forma y límites o en la naturaleza o por la mano del hombre.

El fenómeno intangible del espacio siempre fascinó al hombre y hasta le preocupó. Como la abstracción y el símbolo, el origen del concepto de espacio se halla arraigado en el pensamiento griego. Arquitas, uno de los pitagóricos, escribió sobre la naturaleza del espacio, aunque su obra se ha perdido excepto por lo que se refiere a unos pocos fragmentos. El *Timeo* de Platón, que contiene su pensamiento mitopoyético más profundo, trata de la construcción del universo y desarrolla una cosmología. Platón nos traslada a un punto «antes del comienzo de los años», cuando el tiempo no existía y «la tierra era informe y vacía» (trad. ingl. Bury, 1952, introducción). Involuntariamente se siente la influencia del pensamiento egipcio, bien conocido por Platón desde su larga estancia en Heliópolis. Gradualmente seguimos el proceso por el cual el cosmos surgió del caos.

Platón nos dirige con la ayuda de sus dos conceptos, lo eterno y lo temporal, llamados aquí el modelo y la copia: «Siendo supuesto uno de ellos como Forma Modelo, inteligible y siempre uniformemente existente, y el segundo como la Copia del modelo, sometido al devenir y visible.» Pero aquí, dice, «el argumento parece compelernos» a añadir a estas dos imágenes una tercera: «una Forma que es desconcertante y oscura. ¿Qué propiedad esencial, pues, hemos de concebir que posea? Esta en particular, que sería el receptáculo, y por decirlo así la nodriza de todo Devenir» (49A-B). Más tarde añade: «Mientras que la Forma es siempre recepción de todas las cosas, en ninguna parte y de ningún modo asume ninguna forma similar a ninguna de las cosas que entran en ella. Por eso es impuesta por naturaleza como un material moldeable para todo, siendo cambiada y marcada por las figuras que entran en ella, y a causa de ellas se presenta diferente en tiempos diferentes» (50C).

Platón nunca emplea efectivamente la palabra «espacio», pero nosotros coincidimos con la opinión, mantenida por muchos investigadores de la filosofía antigua, de que la sustancia de la cual habla no era de hecho otra que el espacio, «el Receptáculo del mundo engendrado», la cual sustancia, si la describimos como «invisible e informe, receptora de todo y en algún modo muy confuso y desconcertante participando de lo inteligible, la describiremos fielmente» (51A-B).

Puede advertirse aquí la vacilación de Platón ante la intangibilidad de esta «propiedad esencial» que es el «receptáculo... de todo Devenir». En este medio «invisible e informe» coloca todas las cosas que aparecen y que cambian. Es la primera vez que el hombre intenta definir el fenómeno intangible del espacio. El planteamiento es metafísico, pero también abarca el contenido psíquico del espacio.

En el campo de la arquitectura el espacio es experimentado por medio de la observación, en la cual los sentidos de la vista y el tacto están entrelazados. En primer lugar se trata de una simple declaración de hecho. Pero a través de las relaciones de los elementos más diversos y del grado de su acentuación —líneas

rectas o curvas, planos, estructuras, solidez, proporciones, formas de todas clases—, un asunto de simple observación física puede ser trasladado a otra esfera. Estos diversos elementos son contemplados súbitamente como una sola entidad, como una unidad imbuida de cualidades espirituales. Esta transformación de un hecho físico en experiencia emocional se deriva de un nivel superior de nuestra facultad de abstracción.

La concepción espacial arquitectónica

Es la luz la que produce la sensación de espacio. El espacio es aniquilado por la oscuridad. La luz y el espacio son inseparables.

Si la luz es suprimida, el contenido emocional del espacio desaparece, haciéndose imposible de percibir. En lo oscuro no hay diferencia entre la valoración emocional de una sima y de un interior fuertemente modelado.

La esencia del espacio se halla en la interacción de los elementos que lo limitan. Los diversos modos en los cuales estas partes han sido formadas y relacionadas entre sí constituyen la esencia de la historia de la arquitectura.

Aunque el espacio es intangible, entre el hombre y el espacio hay una relación psíquica. Esta relación cambia continuamente, a veces en matices, a veces fundamentalmente. La relación entre el hombre y el espacio hecho por el hombre aparece en su concepción espacial, que, como su actitud hacia el Estado y su actitud hacia el mundo, está relacionada con la naturaleza de su época. Pero es posible que una cierta concepción espacial persista durante mucho tiempo y que indique los vínculos que relacionan largos períodos simultáneos, como ocurre con las civilizaciones egipcia y sumeria.

La concepción espacial es instintiva y halla su expresión en el modo en que el hombre sitúa los objetos tridimensionales en relación unos con otros. Por lo general, el hombre es inconsciente de la concepción espacial a la cual responde. Por esto la concepción espacial de una época puede dar una idea de la actitud del hombre hacia el cosmos, hacia la naturaleza y hacia la eternidad.

Recientemente las ciencias exactas también parecen haber descubierto la necesidad de investigar los cambios en la concepción espacial «y sus teorías correspondientes» en relación con la historia del pensamiento científico y la física. En el prólogo a *Concepts of Space*, Max Jammer escribe: «*Estoy firmemente convencido* de que el estudio de la historia del pensamiento científico es esencialísimo para la completa comprensión de los diversos aspectos y realizaciones de la cultura humana. Tal comprensión no se alcanza por el tratamiento de los problemas prioritarios en la historia de los descubrimientos,los detalles de la cronología o incluso la yuxtaposición de todas las historias de las ciencias particulares. Es la historia del pensamiento científico en su más amplia perspectiva contra el fondo de la época la que tiene decisiva importancia para la mente moderna.

»El concepto del espacio, a pesar de su papel fundamental en la física y la filosofía, nunca ha sido tratado desde tal punto de vista histórico» (1954, págs. v y s.).

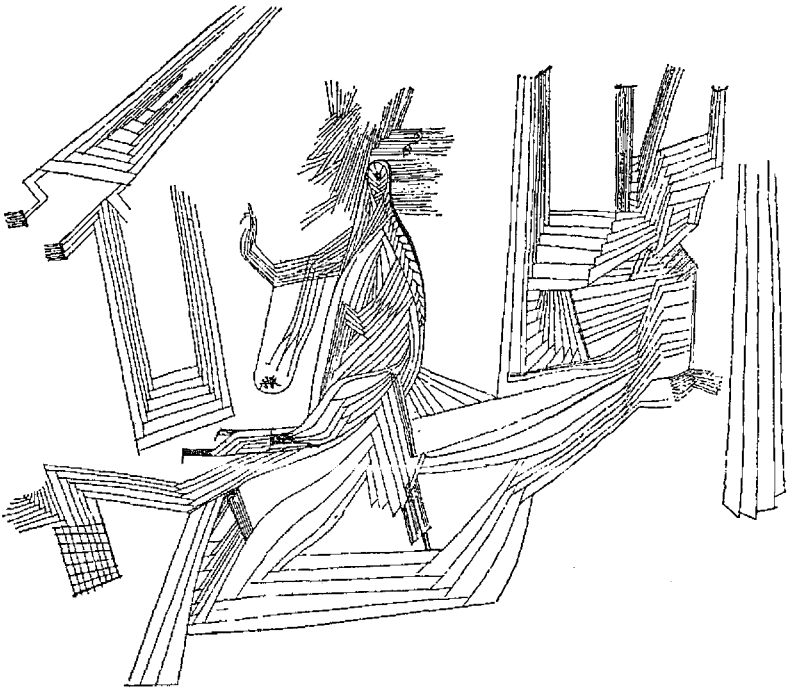
315. Campo visual monocular de un hombre recostado: Tendido a lo largo en un sofá, la visión enmarcada por el arco de las cejas, la nariz y el bigote. La perspectiva en escorzo está basada en un punto de vista estático monovisual. Dibujo de Mach.

Espacio estático y dinámico

Ernst Mach, físico y matemático vienés, examinó profundamente, ya en 1885, la sensibilidad espacial del ojo y la relación de las percepciones visuales entre sí y con elementos psíquicos. En un famoso dibujo representó el campo visual estático de una persona en posición de descanso. En una perspectiva en escorzo dibujó un hombre tendido en un sofá, enmarcado su campo visual por el arco de las cejas, la nariz y el bigote. Las cejas, la nariz y el bigote, en consecuencia, parecen enormes. Como en los comienzos del Renacimiento, la profundidad espacial está indicada por el progresivo escorzamiento de los miembros, e incluso la mano que dibuja está ya empequeñecida.

Espacio dinámico

Inmediatamente se puso de manifiesto que el punto de vista estático de una persona tendida en un sofá es insuficiente. Empezó a reconocerse que el campo de visión natural era dinámico: en otras palabras, que la percepción del espacio no podía estar atada a un punto de vista único. El movimiento desempeñaba un papel decisivo en la percepción del espacio. En este contexto fueron desarrolladas muchas teorías. Una de ellas concebía la percepción del espacio (visión en pro-



316. Paul Klee: «Die Scene mit der Laufenden». Supresión del punto de vista único e introducción de la percepción dinámica del espacio a través del ojo móvil de un observador que se desplaza. Dibujo, 1925.

fundidad) como la percepción de una diferencia de tiempo (Arnold, 1949, pág. 26). Otra medía el tiempo de reacción: el tiempo que transcurre entre el comienzo de un estímulo y la correspondiente acción corporal (Pauli, 1941-1942, págs. 177-192).

Sería muy interesante disponer de un medio para medir la apreciación dinámica del espacio en movimiento, tal como se produce cuando uno se desplaza a través de él. Esto implicaría cambios espaciales y del objeto, continuos y difíciles de captar, dentro de lo que compone el campo visual de un hombre andando. Estos cambios han sido expresados simbólicamente por los artistas contemporáneos.

En la *Scene mit der Laufenden* (Escena con mujer corriendo; 1925) de Paul Klee, éste no puso el acento principal sobre las fases sucesivas de los movimientos corporales de la mujer a través del tiempo. Esto había sido hecho por los futuristas, Giacomo Balla por ejemplo, o Marcel Duchamp en su *Desnudo bajando una escalera* (1912). Klee dio un paso más, incorporando cambios en la forma del espacio circundante mientras éste es atravesado. El espacio y la figura que corre plasman esta realidad psicofísica como una serie de fases que se superponen. Se trata

de una experiencia espacial dinámica: una percepción dinámica del espacio en profundidad, que va más allá del campo del análisis matemático del movimiento. La creciente experiencia espacial es expresada del mismo modo que el crecimiento orgánico transparente de un fruto en otros de los cuadros de Klee.

Desde la época de Paolo Uccello —maestro de la perspectiva en escorzo de comienzos del Renacimiento— hasta las cejas y el bigote de Mach, la distancia en el espacio fue concebida como si fuera contemplada desde un punto de vista estático.

En la concepción contemporánea del espacio el interés se centra en el punto de vista itinerante del observador que se mueve: el espacio que es absorbido por la mente en movimiento dinámico continuo.

Observaciones semejantes han sido hechas por los neurólogos. Según el neurólogo V. von Weizsäcker, la percepción no tiene ningún marco de referencia absoluto y permanente (1943, pág. 16). «Hemos aprendido mientras tanto que no podemos percibir ni siquiera pensar la Naturaleza sin introducir una cosa que es simplemente nuestra propia verdad personal e individual. Hoy la investigación individual y la personificación se han convertido en condiciones determinantes de lo que anteriormente era considerado como Naturaleza objetiva, totalmente independiente del hombre. Nosotros no solamente existimos en el tiempo y en el espacio, sino que el tiempo y el espacio también existen dentro de nosotros, y hay por consiguiente una inevitable interrelación entre la conmoción interna y externa» (pág. 27).

Esta afirmación de que el espacio y el tiempo también existen dentro de nosotros, de que nosotros no estamos simplemente inmersos en ellos, y de que existe una interrelación «entre la conmoción interna y externa» es la mejor explicación de la *Scene mit der Laufenden* de Klee. El cuadro no se ocupa simplemente del desarrollo en serie de movimientos simples o compuestos, tales como las fases del andar, como los futuristas las introdujeron en la conciencia a través de análisis transparentes y cinéticos. El cuadro se ocupa de la presentación simultánea del espacio dinámico que nace de las relaciones cambiantes del espacio con la persona que se mueve en él.

Esta introducción de los cambios advertidos simultáneamente por el observador y lo observado desempeña también un papel importante en la concepción espacial arquitectónica.

La investigación sobre el espacio arquitectónico

La consideración del espacio como material para la representación artística surgió en el Renacimiento, el momento en que la representación en perspectiva racionalmente científica hizo posible introducir el espacio en un plano pictórico de dos dimensiones. Aunque esta consideración tenía la misión de someter la recepción de la perspectiva a un refinamiento sutilmente intuitivo, siempre trató la perspectiva en profundidad. En una conferencia universitaria, Hans Jantzen siguió esta evolución a través de cuatrocientos años (1938), a lo largo de los cuales el interés se centró en la representación del espacio en la pintura. Pero en 1890 surgió

un fuerte impulso por introducir la consideración del espacio arquitectónico. Los principales historiadores del arte empezaron a hallar insuficiente y tosco el análisis de los aspectos formales. Reconocieron que el espacio de Platón, como receptáculo de todo devenir, era un ingrediente esencial de la expresión arquitectónica.

Las primeras investigaciones definidas del espacio como elemento constitutivo del arte visual tuvieron lugar en la última década del siglo XIX. Fueron realizadas por un austríaco, Alois Riegl (1858-1905), un suizo, Heinrich Wölfflin (1864-1946) y un alemán, August Schmarsow (1853-1936). Cada uno de estos tres grandes investigadores contribuyó a su manera a los avances en este campo.

Riegl hizo aportaciones de largo alcance, a pesar de que murió muy joven. Suya fue la idea más universal. Pocas ideas han sido tan fructíferas para investigar en la historia del arte como la suya de la *Kunstwollen*. Fue el ariete usado contra la estética materialista de Gottfried Semper, la cual se había mantenido en escena durante sesenta años. Riegl, como declaró en su *Spätrömische Kunst-Industrie*, publicado por primera vez en 1901 en un periódico profesional poco conocido, fue «que yo sepa el primero... que ha percibido el arte como el resultado de una *Kunstwollen* [volición artística] definida y consciente que se afirma en conflicto con los requisitos de la costumbre, los bienes materiales y las habilidades técnicas» (1927, pág. 9). El entusiasmo resultante de la obra de los tres investigadores se limitó al mundo de habla alemana. Los historiadores del arte y los arqueólogos de otros países a ambos lados del Atlántico consideraron, y en parte consideran todavía, que la preocupación por un tema tan intangible como el espacio cae fuera de los límites del saber serio. En Italia, hasta los últimos años el espacio no ha llegado a ser reconocido como elemento constitutivo de la arquitectura.

En 1888, Wölfflin, en *Renaissance und Barock*, estableció el tono al anunciar el significado del espacio como algo absoluto, una nota que nunca antes había sido oída. En este libro juvenil, cuyo lenguaje lo sitúa entre las raras publicaciones sobre historia del arte que no envejecen con el tiempo, la concepción espacial no es mencionada directamente en ninguna parte, pero impregna toda la obra. Una y otra vez se manifiesta la inseparable relación de las «formas espaciales» con la «vida de un período» y se demuestra el efecto de la forma intangible sobre la interpretación psíquica de la forma espacial. Cabe también sugerir que la escueta fuerza del lenguaje de Wölfflin tuvo gran influencia sobre Riegl y Schmarsow. Wölfflin era discípulo directo de Jacob Burckhardt, manteniéndose muy cerca de él en su idea interior del alto Renacimiento, aunque desde el comienzo Wölfflin vinculó a éste con el barroco. Fue tal vez por naturaleza el último hombre del Renacimiento. Buscó durante toda su vida la quietud y la dignidad serena, y su principal interés se centró en la extensión del Renacimiento hasta el siglo XIX. Este fue el período en el cual arraigaron los cinco pares de ideas expuestas de manera tan magistral en su *Kunstgeschichtliche Grundbegriffe* (1915).

Aunque Riegl se ocupó principalmente del arte menor de las provincias romanas, su visión histórica recorrió un campo más amplio incluso desde el comienzo, y de allí se ensanchó hasta abarcar la universalidad. Siguió la *Raumbildung* —formación del espacio— desde las pirámides hasta el arte paleocristiano. Por primera vez un historiador del arte se atrevió a observar la arquitectura egipcia con ojos distintos de los del arqueólogo. Para ello Riegl utilizó las ideas polarizadas de

visión y tacto: óptica y háptica. Estas se remitían a la función general de los sentidos y no procedían de un estilo específico. El tacto de un objeto le confiere su forma plástica. La visión introduce el concepto óptico de su aspecto. Esta categorización visión-tacto (óptica-háptica) trata de la percepción humana generalizada del mundo exterior y es susceptible de ser aplicada universalmente.

De hecho —aunque mucho después— la misma idea fue empleada en la matemática moderna. Gilbert de B. Robinson la definió como sigue: «Nuestro concepto de *espacio físico* es el resultado del deseo de ordenar nuestras experiencias del mundo exterior... Nuestra experiencia del mundo exterior nos llega a través de los sentidos, y de éstos, el sentido de la *vista* y el sentido del *tacto* parecen ser los más significativos» (1946, pág. 5).

La idea del espacio de Riegl es igualmente provechosa, aunque su exploración del mismo está más bien obstaculizada por la tradición. Riegl supone que el observador del espacio está inmóvil y por consiguiente tiene una concepción espacial estática, como la que Mach definió y expuso en 1886. El observador ideal está pues clavado a un punto de vista fijo, tanto por lo que se refiere al espacio interior como al exterior.

El tercero de estos precursores, Schmarsow, consideró la limitación a un solo punto de vista demasiado unilateral y no lo bastante sensible a la percepción humana. Para percibir un objeto plenamente, el observador tiene que tener un punto de vista continuamente cambiante. Ya en 1893, en su conferencia inaugural en Leipzig, «La naturaleza de la investigación en el espacio arquitectónico», Schmarsow vislumbró la naturaleza íntima de la formación del espacio arquitectónico. En su obra principal sobre los conceptos fundamentales del arte (1905), proclamó categóricamente: «Tanto la base como el determinante inalterable en la definición de la arquitectura como arte tiene que ser, pues, la *formación de espacio* (Raumbildung). La arquitectura es moldeadora del espacio desde el comienzo hasta el final: su naturaleza se deriva de esta idea» (pág. 184; la cursiva es mía).

En este trabajo Schmarsow analiza algunas de las afirmaciones de Riegl en una no estéril polémica, diciendo en el prólogo: «Por sus discusiones críticas, yo me adhiero, en primer lugar, a la importantísima y docta obra de Alois Riegl *Spätrömische Kunst-Industrie* (Viena, 1901), puesto que dicha obra, siguiendo la intención expresa de su autor (pág. 139), está fundamentalmente dedicada a la discusión de los problemas principales» (pág. iv).

Schmarsow se ve incitado a desarrollar un análisis productivo y amplía el campo introduciendo una observación dinámica, en lugar de estática, del espacio. Un edificio debe ser rodeado —«recorrido alrededor»— y su espacio interior debe ser «recorrido a través»: un requisito constantemente acentuado también en las conferencias de Wölfflin. Como expresó verbalmente, la arquitectura exige ser atravesada.

Schmarsow fue el primero que destacó claramente la concepción dinámica de los espacios conformados. Veremos que este concepto nos conduce a una valoración positiva de la primera concepción espacial arquitectónica, la cual no era accesible a Riegl, y que se produjo mucho antes de que los científicos hubieran reconocido el proceso dinámico de la visión y relacionado ésta con el componente temporal.

Si Riegl puso los cimientos para la comprensión de una obra de arte en la *Kunstwollen*, y para la comprensión de una obra arquitectónica en el tacto y la visión, Schmarsow tomó la iniciativa en lo que se refería a ampliarlos. Es completamente erróneo ver las enseñanzas de Wölfflin, Riegl y Schmarsow como observaciones puramente formalistas y fisiológicas, como ocasionalmente ha ocurrido. La idea de *Kunstwollen* de Riegl y la de *Lebensgefühl* (aprecio de la vida; vitalidad) de Wölfflin aclararían bastante esto. Todos ellos trataron, a su manera, de abarcar la estructura total de un período.

La concepción espacial no es más que el descubrimiento de la intención arquitectónica. La arquitectura de las primeras altas civilizaciones, la cual está saturada por todas partes de simbolismo y significado místico, solamente puede ser comprendida cuando se la relaciona con su concepción espacial.

La concepción espacial en la prehistoria y en las civilizaciones arcaicas

Hemos pretendido gradualmente poner de manifiesto aquellos elementos cuya combinación creó la primera concepción espacial: la abstracción, la supremacía de la vertical, la superficie plana y los volúmenes en el espacio. Estas cosas, sensibles para la vista y al tacto, estaban también cargadas de significados simbólicos nada simples. Como es frecuente en las grandes civilizaciones arcaicas, son plurales, tienen múltiples significados. Por una parte, su fondo simbólico estaba ligado a una grandiosa perspectiva cósmica: al movimiento de las estrellas, al ciclo eterno del día, al viaje y el movimiento constantes. Por otra parte, estaban unidas a una jerarquía social sumamente rígida, la cual estaba también implicada en el aspecto cósmico.

La perspectiva arcaica total, como la de la prehistoria, asumía la unidad e inseparabilidad del mundo. Un mundo en el cual el animal formaba parte de la comunidad, elevándose incluso a divinidad, y donde todavía no era considerado como una criatura inferior.

A pesar de esto, hay una profunda diferencia entre la concepción espacial de la prehistoria y la de las civilizaciones arcaicas. Antes preguntábamos qué es lo que diferenciaba la concepción espacial de la prehistoria de la de hoy.

El arte primevo era un arte rupestre. Las cavernas y riscos tienen superficies curvas que cambian continuamente de forma y dirección. Esta multiplicidad de formas, esta infinita libertad de direcciones, estas superficies continuamente cambiantes formaban parte de la esencia del arte primevo, el cual estuvo más cerca de la naturaleza que cualquier otro, pero sin embargo supo tener en cuenta la individualidad humana.

La libertad de las superficies se correspondía con la libertad de dirección. La vertical y la horizontal todavía no habían logrado el predominio. La visión del hombre primevo, como la de los pueblos primitivos contemporáneos (los esqui-

males, por ejemplo), mantiene la misma estima por todas las direcciones. Las representaciones que nosotros vemos verticales —animales que parecen estar cayendo o manteniéndose sobre sus cabezas— no pretendían serlo. No pueden ser interpretadas según los principios de la coordinación vertical. Para la visión primitiva, tales animales están simplemente dispuestos unos cerca de otros.

La libertad de planteamiento de todas las direcciones y superficies, como los animales frecuentemente transparentes e interpenetrados, ha engañado a menudo a los observadores en el sentido de considerar el arte de las cavernas como caótico y carente de toda composición. No es necesario discutir esto aquí. En los últimos años, los investigadores franceses han hecho estudios estadísticos de las leyes de la composición, la división y la combinación de tipos y grupos de animales, y han descubierto una asombrosa coincidencia en la situación de los mismos en puntos determinados de las cavernas. Esto no es el resultado de seguir leyes racionales de la composición en nuestro sentido.

Las consecuencias de la rígida organización jerárquica de la sociedad arcaica pueden reconocerse también en la supremacía de la vertical, seleccionada entre múltiples direcciones. Fue la vertical la que simbolizó la postura humana en contraste con la del animal: el hombre empezaba a creerse el soberano de la tierra.

Así como fue elegida una dirección entre todas las demás para convertirse en principio rector, así también la interminable variedad de las superficies rocosas llegó a ser sólo una: un plano pulido e intacto. Esta abstracción es también aplicable a Sumer, pero sólo en Egipto la superficie rigurosamente lisa llegó a hacerse exclusiva: los planos absolutamente inmaculados de las pirámides con su total rechazo de cualquier detalle. La superficie plana nunca desapareció de la arquitectura o el arte egipcios, ni en los templos del Imperio Nuevo ni en los relieves rehundidos, cuya delicada articulación, entrelazada directamente con la superficie, tan unida estaba al temperamento egipcio.

Las superficies puras se convirtieron en volúmenes: pirámides, pilonos y obeliscos. Desde el punto de vista de la arquitectura oficial desarrollada después de las estructuras abovedadas romanas, estos volúmenes no caen dentro del campo arquitectónico. El objetivo más importante de la arquitectura occidental ha sido la formación del espacio en hueco: el espacio interior. Esta era la opinión de Riegl, quien siempre tuvo en el pensamiento un espacio en forma de cúpula que era el que mejor expresaba en forma monumental el espacio en hueco. Pero esta clase de espacio interior fue desconocida por la arquitectura de las primeras civilizaciones arcaicas. Su actitud hacia el problema del abovedamiento puede ser descrita brevemente.

En el origen de la arquitectura —tanto en Egipto como en Mesopotamia— hubo un período en que la casa de dios, el templo, fue concebida como un espacio interior similar a la casa de habitación recientemente desarrollada. No obstante, para Riegl, el arte egipcio posterior fue un arte sin espacio: «El ideal arquitectónico del antiguo Egipto está expresado con la mayor pureza en el monumento funerario típico: la pirámide. Situado el observador ante cualquiera de sus cuatro lados, a sus ojos sólo se ofrece el plano unificado de un triángulo equilátero, cuyos lados de agudo corte de ningún modo sugieren su unión con un cuerpo tridimensional puesto detrás.» Bajo el sortilegio del punto de vista fijo,

Riegl solamente veía las superficies intangibles sueltas y llegó a la conclusión de que «la pirámide es más una pintura que una estructura» (1927, pág. 36).

Aquí es donde interviene Schmarsow. Desde el principio se había interesado por el punto de vista móvil y, en consecuencia, por la percepción dinámica del espacio: «Cuanto menos tendamos a comportarnos como criaturas de un sólo ojo, satisfechas con un solo punto de vista, más llegaremos a acostumbrarnos a cambiar nuestros puntos de vista para abarcar la individualidad material de las cosas desde todos los ángulos posibles... En el análisis de Riegl lo principal, la sustancia corpórea y la verticalidad... se le escapan» (1905, págs. 16-17).

Riegl reconoció la gran importancia de las superficies planas como el elemento constitutivo de la pirámide. Su posterior conclusión de que el significado de los planos se halla en la intangibilidad de los mismos no puede ya ser aceptada.

Forma parte de nuestra naturaleza que todo producto humano, cualquiera que sea, tiene que estar relacionado con su propio tiempo y lugar. Puede, sin embargo, contener semillas susceptibles de evolución posterior. Estas existen en cantidad asombrosa en la obra de Riegl. Lo que ha cambiado es nuestro planteamiento de las superficies, de los volúmenes y del espacio.

Pirámides, planos y volúmenes

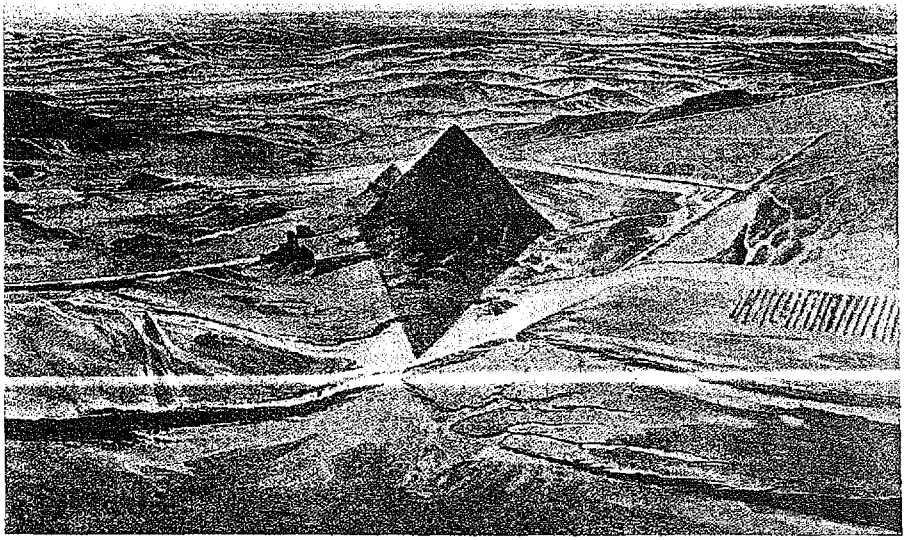
Las pirámides se alzan en el borde del desierto. A sus pies se extiende el fértil valle y detrás un yermo de arena sin límites. La vida y la muerte, la fertilidad exuberante y la tierra eternamente estéril se juntan sin compromiso.

Las pirámides son únicas en un aspecto. Ningún período posterior ha intentado siquiera hacer uso de una sencillez tan sutil para expresar el impulso irreprimible de unir el destino humano con la eternidad. Esta sencillez absoluta y esta precisión perfecta es lo que transforma la lógica de los números en enigma y misterio.

Los planos triangulares, enormes y muy pulimentados, impiden que nada perturbe al difunto. Las pirámides eran símbolos inalterables, sedes de los reyes-dioses. Sus superficies, grandes e inmaculadas, hacían de espejo para la atmósfera incesantemente cambiante. Exhibían lo que la vista sólo percibe parcialmente. Reflejaban todo lo que pasa entre la tierra y el cielo: todos los cambios, infinitos y delicados, de las horas en movimiento. Incluso hoy recogen la luz, aunque sus superficies son actualmente ásperas y granuladas. El juego siempre cambiante de la luz las imbuye de movimiento eterno. Su color y forma atraviesan todas las fases: casi completa desmaterialización en la luz deslumbrante del mediodía, enorme densidad en las sombras del atardecer, un plano triangular negro elevándose verticalmente en la noche estrellada.

Una mirada imparcial que nunca hubiera visto una pirámide —el observador de Riegl, digamos— no completaría automáticamente su volumen. Las superficies planas adquieren vida por sí mismas. En realidad sólo uno, o lo más dos de los triángulos pueden percibirse al mismo tiempo. A través de la luz cambiante, de alguna manera llegan a destacarse del cuerpo sólido que forman.

De manera algo parecida se creía que el *ka* era independiente del hombre.



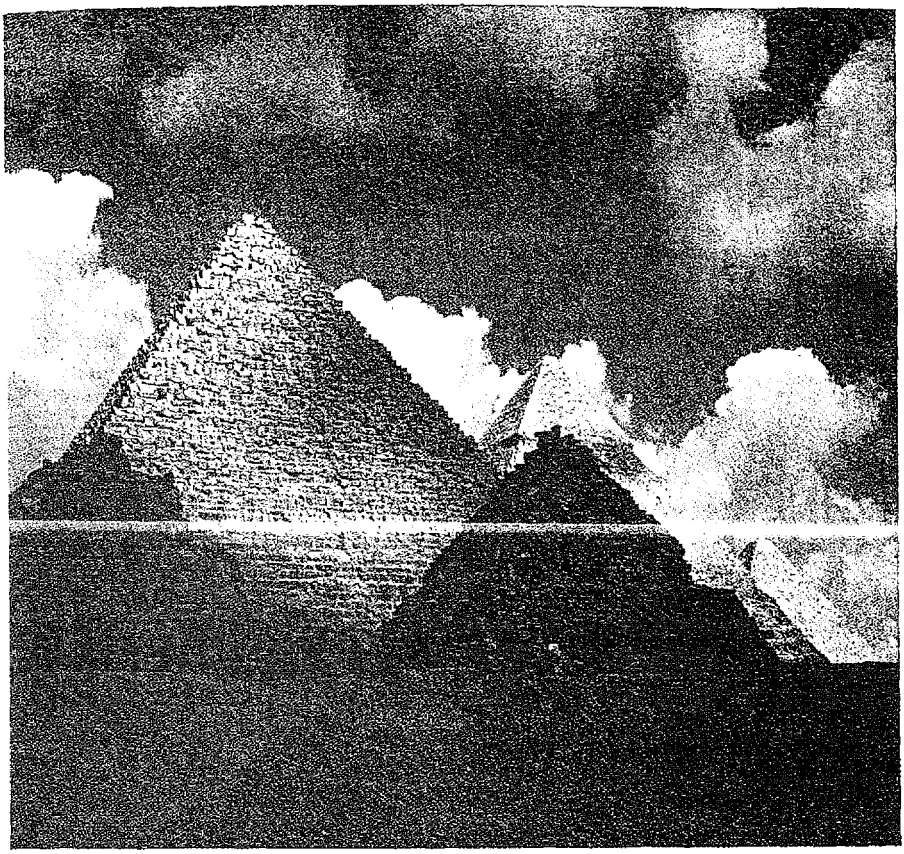
317. Volúmenes en el espacio: La unidad cósmica entre la pirámide, el cielo y el desierto sin límites. Tomado de Lepsius.

Formaba parte de él y, sin embargo, al mismo tiempo estaba aparte. Podía entrar en su cuerpo y dejarlo. Los triángulos de la pirámide elevándose hacia las alturas parecen poseer esta misma entidad independiente.

Hemos empezado a comprender este fenómeno. El escultor Brancusi, explicando la facultad de formar parte de un cuerpo y sin embargo estar separado de él, ha dicho: «Creo que una forma verdadera debe sugerir el infinito. Las superficies deben dar la impresión de ser siempre duraderas, como si salieran de la masa a una vida perfecta y completa» *(Time,* 14 de noviembre de 1955, pág. 88).

En el apogeo de la edad de las pirámides, éstas estaban raramente aisladas. Las tres grandes estructuras de Gizeh están organizadas en una relación algo diagonal. Sus superficies inclinadas actúan en relaciones cambiantes y parecen liberarse de los volúmenes a los que están unidas. El drama de esta interacción sólo se manifiesta cuando uno se para ante la antigua pirámide de Meidum, o la pirámide escalonada de Zoser, el tiempo suficiente para que su influencia pueda ser apreciada. Estas pirámides permanecen aisladas en grandiosa relación con el cosmos. Pero la fuerza arquitectónica de una pirámide logra su punto culminante cuando hay una interacción de volúmenes.

Lo que ocurre es más o menos lo mismo que describimos en otro lugar con referencia al Rockefeller Center de Nueva York (1931-1937); el «gran juego de



318. Las tres pirámides de Gizeh: «L'architecture étant le jeu savant, correct et magnifique, des volumes sous la lumière» (Le Corbusier).

volúmenes y superficies» (Giedion, 1954, pág. 755) que constituye algo completamente diferente del punto de vista único del Renacimiento. En el Rockefeller Center la densa concentración de los rascacielos en forma de bloques hace más fácil ver cómo los radiantes planos se separan del núcleo central. Pero lo que ocurre es en principio lo mismo.

Como los planos individuales, el efecto de los volúmenes no queda reducido a sus límites físicos efectivos. También ejercen una cierta radiación. Aun cuando ésta no puede ser medida directamente, existe como el área de un campo electromagnético. Nuestros ojos la registran y se hace evidente en nuestra reacción psíquica. Este hecho es reconocido hoy nuevamente, porque la interacción de las gigantescas casas de apartamentos de gran altura se ha convertido en una experiencia diaria.

La idea de arquitectura se ha extendido. La concepción de la arquitectura como sinónima de la creación de espacio interior ha parecido demasiado restrin-

gida y se ha desechado. La misma radiación que da a un espacio interior abierto su forma psíquica (su *Gestalt)* emana también de los volúmenes. La diferencia es que éstos no irradian hacia un espacio interior, sino que se derraman en el cosmos.

Su estrecho vínculo con la presencia eterna de lo cósmico es el mejor legado de la arquitectura egipcia. Es la expresión más completa de la interrelación de lo cósmico y lo humano: de la presencia eterna y el cambio temporal.

La pregunta de si las pirámides son arquitectura o escultura se contesta por sí sola. En efecto, la pregunta misma está enraizada en la concepción de la arquitectura como sinónimo de espacio interior. Lo que significa hoy la arquitectura fue expresado claramente por Le Corbusier en 1923: «Siendo la arquitectura el juego magistral, correcto y magnífico de las masas unidas en la luz, la misión del arquitecto consiste en vitalizar las superficies que revisten estas masas» y utilizar dichas superficies para acentuar y desarrollar las formas (trad. ingl. 1927, pág. 37).

La primera concepción espacial arquitectónica es una arquitectura de volúmenes en el espacio.

Espacio interior e iluminación

Muchos de los elementos de los planos de los grandes templos del Imperio Nuevo existían ya en forma embrionaria en los templos piramidales de la IV Dinastía. Los primeros templos de ofrendas y funerarios, inmediatamente al lado de la pirámide, sirvieron poco más o menos a los mismos fines que las versiones posteriores. En los primeros se realizaban ritos y se celebraban sacrificios por el rey difunto, y en los otros en homenaje a Amón.

La gloria del Imperio Nuevo, las salas hipóstilas de los grandes templos, tuvieron un antecedente en la larga sala de entrada de Zoser, aunque no fue desarrollado posteriormente. Riegl reconoció el aspecto único de estas salas cubiertas. Vio que no eran en absoluto espacios interiores en el sentido aceptado más tarde. No se intentaba en ellas formar un espacio; estaban ocupadas por un bosque de columnas. Sus dimensiones y sus límites no podían ser claramente apreciados: «El efecto visual de las paredes, techo y suelo distantes habría creado una impresión de espacio que con seguridad hubiera causado a los egipcios el máximo malestar. Por consiguiente las salas se vieron densamente pobladas de un tupido bosque de columnas de apoyo, de manera que todos los planos que habrían actuado como elementos creadores de espacio fueron abiertos y separados. Como consecuencia, la sensación de espacio, a pesar del considerable tamaño de las salas, quedó muy reducida, y la vista era solicitada por la impresión de las columnas individuales» (1927, pág. 37).

Desde el punto de vista espacial, las paredes cubiertas de relieves eran inexistentes. Las series de columnas las oprimían tan estrechamente que dividían sus superficies. Casi es imposible que el objetivo de la cámara fotográfica encuentre una posición desde la cual captar los relieves. Por eso habla Riegl de la «espaciofobia» de Egipto *(ibíd.).*

Las salas hipóstilas no formaban un espacio cerrado para congregar a los fieles, como el de la basílica cristiana. Solamente accedían a ellas los privilegiados y no

eran lugares de permanencia ni siquiera cuando eran utilizadas para la celebración de ritos importantes. Eran lugares de paso para el viaje del dios de un santuario a otro, y estaban poco iluminadas.

La actitud de los egipcios hacia el espacio interior puede deducirse del tratamiento dado a las columnas y a la iluminación.

Las columnas

Las grandes salas hipóstilas con sus bosques de columnas papiriformes, sus techos pintados de azul y su débil iluminación no fueron concebidas como espacios interiores cerrados. Esto se hace evidente en todas partes a partir de su tratamiento tectónico. Las columnas imitando papiros, terminadas en capullos o flores, no representan un andamiaje de apoyo, como lo hacían las columnas en Grecia. Schäfer observó que «las columnas egipcias se presentan como plantas que crecen libremente, sin indicación de que sus cabezas actúen como soportes... Los egipcios, como los babilonios, consideraban el techo del templo como una bóveda celeste. En Egipto, incluso los artistas de Zoser pintaban estrellas en los techos de las salas» (1929, pág. 31).

Es también significativo que el arquitrabe nunca se desarrolló en Egipto. Su forma nunca cambió con la de las columnas (Jéquier, 1924, pág. 168). Las columnas y las vigas se hallan en una relación arquitectónica como soportes y cargas. Pero nunca se acentuó estéticamente tal relación, como en Grecia, donde las columnas soportan abiertamente el templo, cuyo techo a dos aguas y cuya ornamentación refuerzan su significado como casa de Dios.

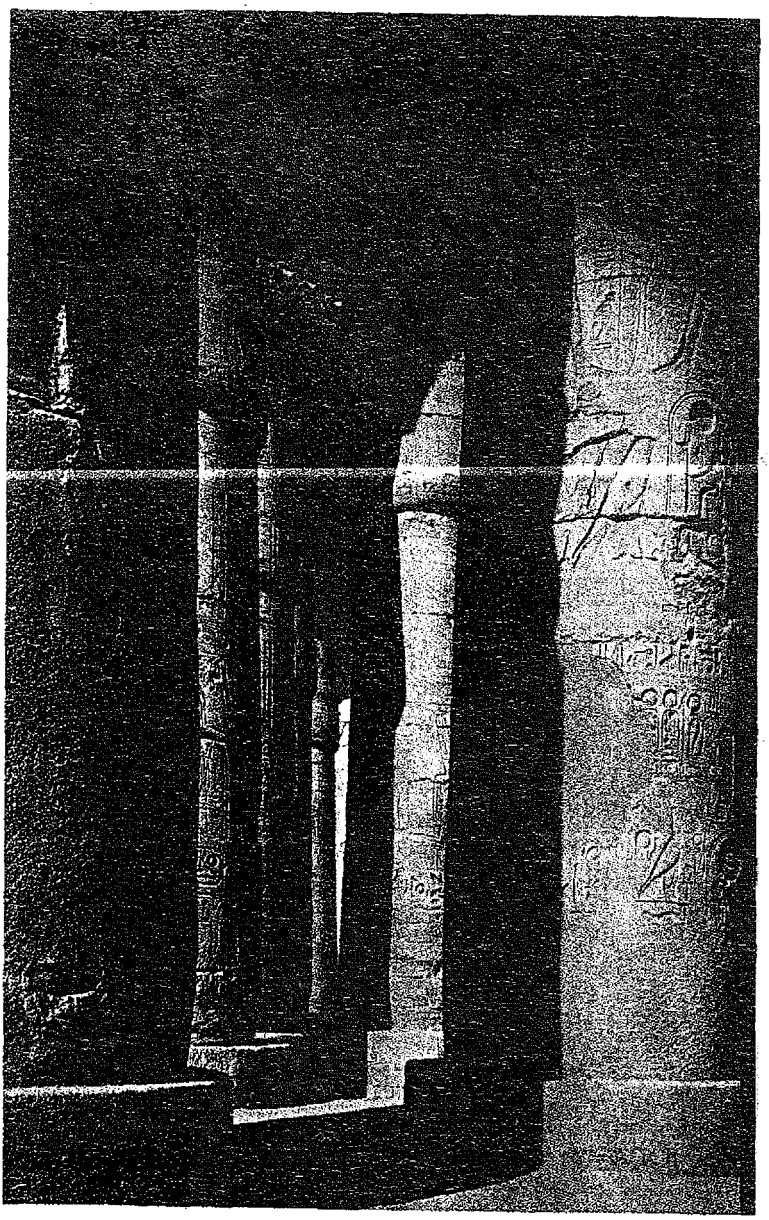
En la imaginación de los egipcios la sala hipóstila de techo plano parece abierta al cielo aun cuando esté cubierta.

La iluminación

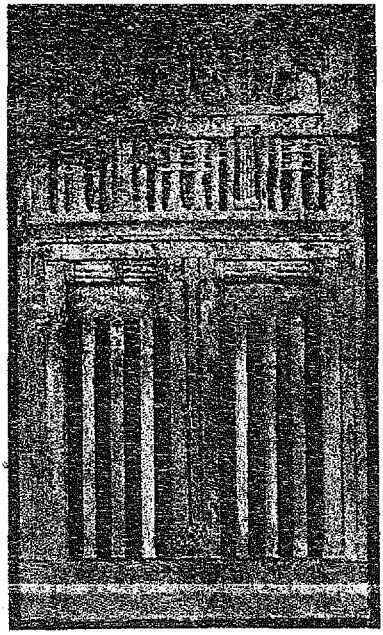
El modo en que la luz es dirigida y modulada tiene consecuencias máximas para la concepción espacial, puesto que la luz y las formas que limitan el espacio son las que dan su carácter a un conjunto arquitectónico.

Desde el complejo funerario de Zoser hasta el gran templo tolemaico de Edfú, desde el principio hasta el final, los egipcios sienten la necesidad de un espacio poco iluminado, oscuro. En el primer espacio interior auténticamente construido, la sala de entrada de Zoser, las ventanas de las paredes laterales consistían en pequeñas aberturas, de manera que sólo pudiera penetrar una pequeña cantidad de luz. En el templo del valle de Kefrén, de tres naves, el único templo de la IV Dinastía cuya iluminación puede establecerse con seguridad, los rayos de sol también entran a través de estrechas aberturas horizontales situadas cerca del techo. De modo semejante, en la sala de festivales de Tutmosis III en Karnak la nave estaba iluminada solamente desde aberturas colocadas en alto, aun cuando éstas fueran algo más grandes.

El principio del espacio en penumbra se conservó también en las grandes salas hipóstilas. En la de Karnak, la nave estaba iluminada desde arriba y las celosías de piedra insertas en estrechas aberturas verticales dejaban pasar la luz como a través



319. Aversión al espacio interior: gran sala hipóstila de Karnak: Columnas de las naves laterales de la gran sala hipóstila, cuyas 134 colosales columnas papiriformes llenan el vacío de la sala de manera que no puede desarrollarse ningún espacio interior. Esto fue reforzado situando los centros de las columnas en series alternas.



320. Ventanas cubiertas con rejas de piedra: En la sala del trono del rey Merentah la luz se filtra a través de pequeñas aberturas, como en la gran sala hipóstila de Karnak. Menfis, XIX Dinastía.

de un filtro. Había también pequeños orificios en los bloques del techo. La sala del trono de Merentah, de la XIX Dinastía, en Menfis, tenía la misma escasa iluminación que en tiempos antiguos.

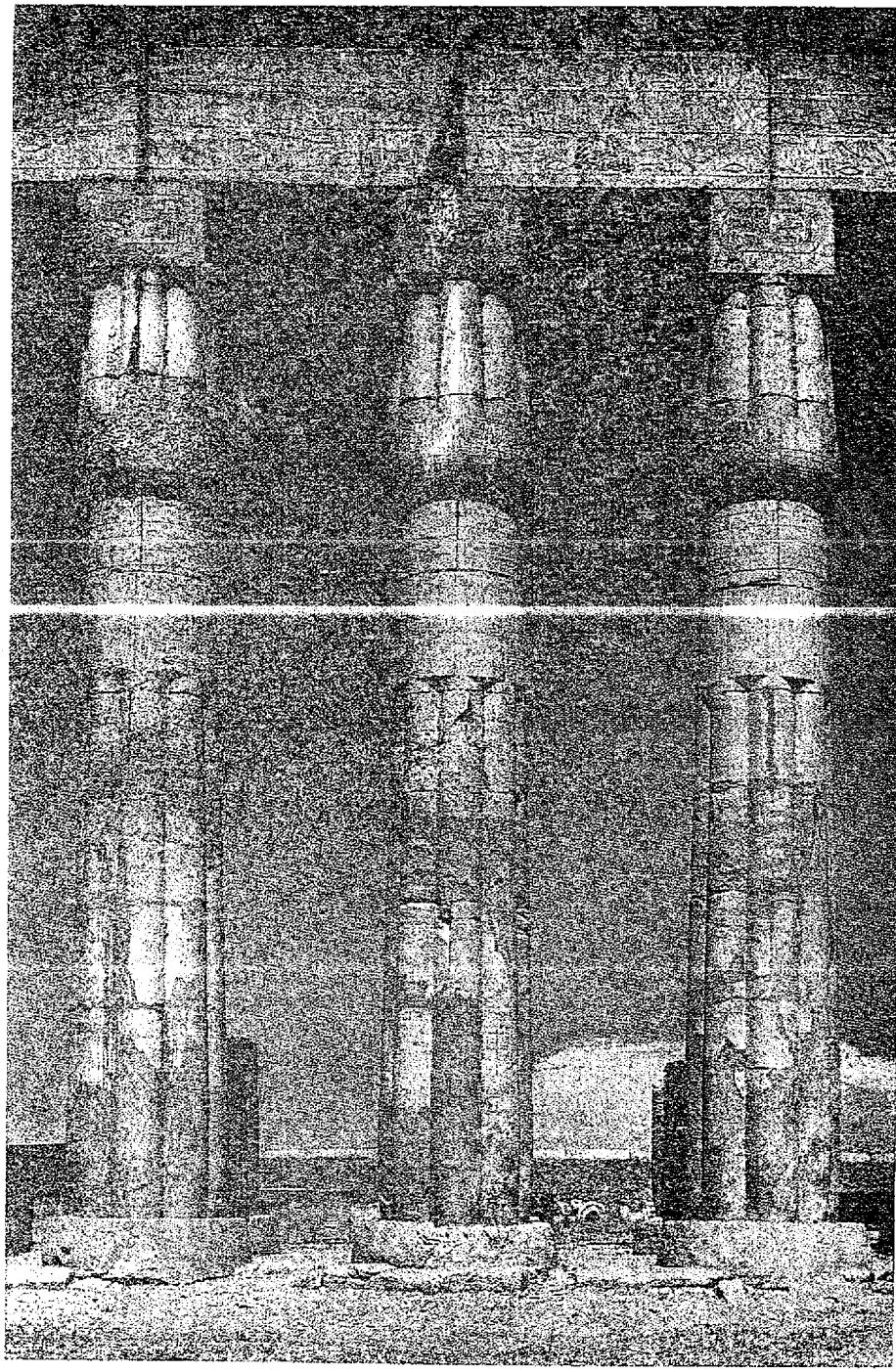
La construcción de bóvedas en las civilizaciones arcaicas

Las cúpulas y las bóvedas de cañón podrían fácilmente no ser mencionadas aquí, puesto que no desempeñaron ningún papel en la arquitectura monumental de las primeras civilizaciones arcaicas. Tampoco lo desempeñaron en Grecia. La oposición entrecruzada de verticales y horizontales fue común a todas estas civilizaciones, que concedían poco valor al espacio interior.

Al mismo tiempo, las bóvedas y cúpulas fueron empleadas desde los comienzos mismos de la arquitectura, y el arco apuntado más antiguo, hallado en Eridu, se remonta al cuarto milenio.

Una choza de cañas o una casa de barro se hacen más complicadas cuando son edificadas con paredes rectangulares y verticales. Los haces de cañas o la mezcla de esteras y barro adoptan la forma de la bóveda arqueada más fácilmente que la de un techo plano en ángulo recto con las paredes. Que esto no fue debido solamente a la mayor facilidad de construcción se demuestra por varios jeroglíficos de la I Dinastía que representan un santuario en forma de un animal con cuernos y rabo. «La cubierta en forma de dorso de un animal se transforma en una bóveda irregular» (Badawy, 1954, pág. 63).

Los grandes edificios de Menfis deben de haber presentado una tremenda diferencia desde las primitivas chozas, pero sin embargo también tuvieron techos de madera, con paredes de ladrillo y esteras. Las fachadas de piedra del complejo



321. Columnas imitando haces de papiros, de Luxor: Las columnas egipcias no acentúan las relaciones de carga y apoyo, sino que parecen alzarse libremente en el espacio. Lado oeste del patio del templo de Luxor.

de Zoser en Saqqara dan alguna idea de su aspecto, acabando en una suave curva acentuada por una moldura. Estos edificios de Zoser terminaron la evolución más primitiva. En tiempos de la IV Dinastía ya estaban anticuados y dieron paso a una expresión más directa de verticales y horizontales.

Aún hoy se erigen en Mesopotamia edificios de cañas de considerable tamaño, como los del relieve sumerio de los establos sagrados de la diosa Inanna. Un edificio semejante aparece en un fragmento de ebonita como capilla egipcia primitiva de la I Dinastía. Casi todas las formas básicas de abovedamiento —cúpula, bóveda de cañón y arco— se hallan aquí. Este diminuto templo era la morada de un dios o de un animal sagrado. En Mesopotamia, incluso en la segunda mitad del tercer milenio, un templo fue reconstruido con bóveda de cañón y entradas de ventilación (Tell Asmar).

En Egipto también hay pruebas tempranas de abovedamiento. En los comienzos de nuestro siglo, J. Garstang halló tumbas en el Alto Egipto con arcos curvos y bóvedas de cañón, conteniendo ambos la falsa bóveda y el arco rebajado (1904, lám. 14). Es típico de la construcción de bóvedas en Egipto, que permaneció estancada, que las bóvedas del Ramesseum, de la XIX Dinastía, unos mil

322. Antepecho curvo de capilla: Fragmentos del antepecho curvo que remataba una de las capillas del patio del Heb-Sed del complejo funerario de Zoser en Saqqara.

doscientos años después, todavía fueran construidas a partir de un doble arco, como se hacía primitivamente.

Recientemente, en el norte de Saqqara, Emery halló que ambos sistemas de abovedamiento —el de aproximación de hiladas y el rebajado— existían en muy modestas dimensiones al final de la I Dinastía. La tumba secundaria de un sirviente sacrificado (Tumba 3500) estaba techada «con una bóveda de cañón sesgada hecha de ladrillo, apoyada en una cornisa... Con el material de techado de la tumba se levantó encima de la misma una alta superestructura abovedada» (1958, III, pág. 102).

Aún más interesante es la gran bóveda de cañón que Emery halló relacionada con la tumba de Horus Aha (Tumba 3357) en el llamado sector modelo: «Uno de los aspectos más extraordinarios es la larga bóveda de cañón que desciende a todo lo largo de la avenida entre los dos edificios... Aquí, por primera vez, tenemos información del verdadero aspecto de los edificios monumentales de la I Dinastía que no está basada en... una reconstrucción hipotética» (1954, II, pág. 171).

La bóveda egipcia típica, como la sumeria, era la bóveda falsa, en la cual las hiladas de ladrillos o piedras sobresalen hacia dentro. Esto se encuentra en gran escala en la cámara funeraria de la pirámide de Meidum, y alcanza una altura impresionante en la pirámide quebrada de Dahshur, la cual contiene una serie de bóvedas rectangulares. En la Gran Galería de la pirámide de Keops, donde las paredes se estrechan hacia la cúspide, la falsa bóveda alcanza su forma más monumental. Jéquier observó correctamente: «No se trata de una bóveda sino de un techo extraordinariamente extendido en altura» (1924, pág. 311).

La inexistencia de formas curvas y circulares en estructuras tan monumentales era casi inevitable en el período de la supremacía de la vertical. Es decisivo que estas tumbas abovedadas fueran eternamente inaccesibles y estuvieran en perpetua oscuridad.

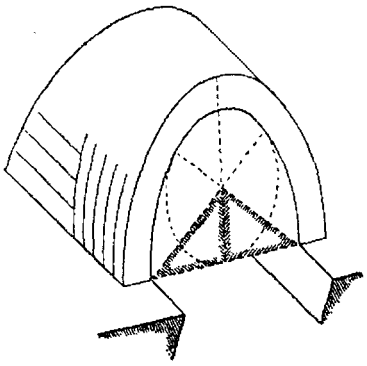
Cúpulas circulares coronando las cámaras funerarias pueden hallarse en cantidad en el Imperio Medio. Sólo se conoce un ejemplo de la IV Dinastía: la tumba de Seneb en Gizeh.

Las bóvedas siguieron careciendo de importancia en el Imperio Nuevo. Nunca eran visibles desde el exterior. Eran imágenes ctónicas: cavernas en el corazón de la tierra. La vaca Hator, la diosa-madre y protectora de los muertos, avanza desde su bóveda de cañón en un relieve de la capilla de Amenofis III.

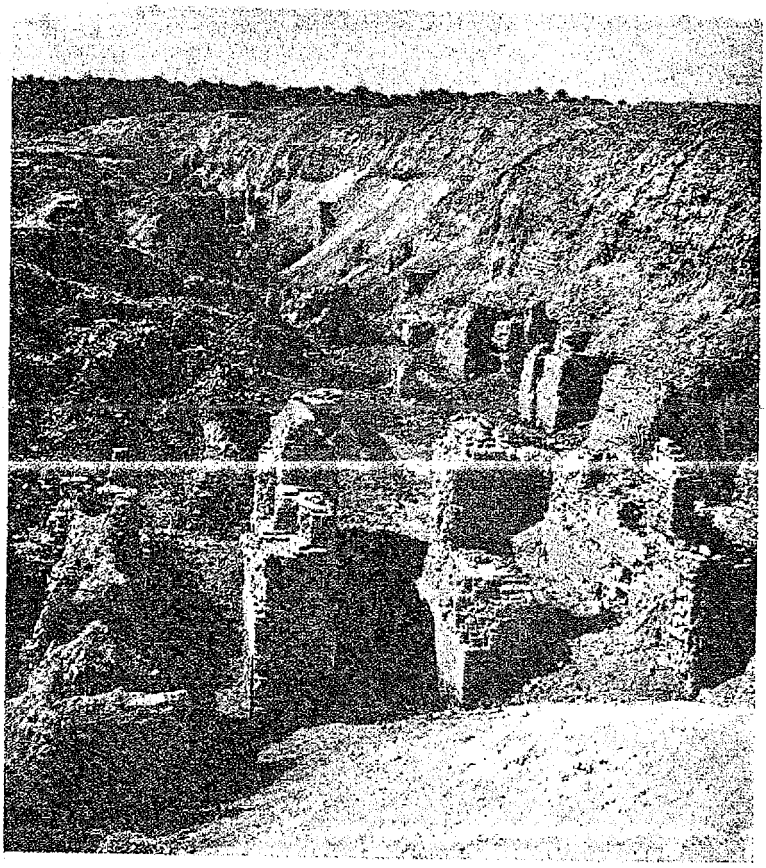
Hatsepsut también edificó una capilla de Hator en la roca. La bóveda que la cerraba era todavía una bóveda falsa, aunque los extremos de los bloques salientes están suavizados hasta formar un arco. «Al disminuir aquellas partes que sobresalen, se asegura el equilibrio sin restar apenas solidez» (Choisy, 1904, pág. 68). El mismo principio fue empleado posteriormente en el templo de Seti I en Abydos para abovedar siete capillas consagradas a diversos dioses y al rey deificado. Estas capillas con bóvedas de cañón adyacentes estaban también en la oscuridad. Las pequeñas aberturas cuadradas de la bóveda —según la opinión de Amice Calverley— eran solamente para la ventilación.

En la vida cotidiana la bóveda era la forma más conveniente de cobijo. Las cámaras de almacenaje del Ramesseum de Tebas están entre las mejor conservadas. Sus bóvedas se componen de hiladas de ladrillos superpuestas, cada una de ellas

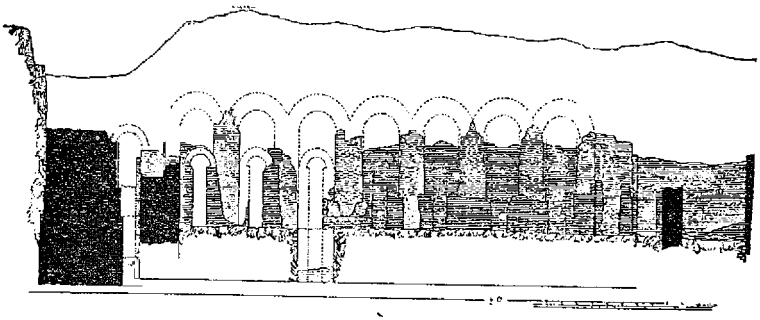
323. Bóvedas de cañón hechas de ladrillo correspondientes a almacenes: El Ramesseum, templo funerario de Ramsés II. Tebas, XIX Dinastía, siglo XIII a.C.



324. Construcción de bóvedas de cañón del Ramesseum: Ni el material empleado ni los métodos de construcción cambiaron a través de mil quinientos años. Dibujo de Choisy.



325. Bóvedas de cañón como subestructura, en Babilonia: Las bóvedas de cañón hacían de cimientos invisibles para los Jardines Colgantes de Semíramis. Siglo VI a.C.



326. Jardines colgantes de Babilonia: Reconstrucción. Tomado de Koldewey.

reforzada por las que están encima. Choisy ha demostrado esto muy claramente. Esta construcción es todavía muy primitiva y recuerda el principio de las bóvedas dobles y las «bóvedas de cañón sesgadas» de la I Dinastía, halladas por Emery.

La falta de interés por el aspecto externo de las bóvedas fue común a todas las culturas arcaicas. Los dos pisos de siete bóvedas de cañón que soportaban los legendarios jardines colgantes de Babilonia tenían un tímido vano de 3 a 3,5 metros. Koldewey, el excavador de Babilonia, declaró que la construcción de las bóvedas «muestra claros signos de tranteo y de falta de experiencia» (1913; trad. ingl. Johns, 1914, pág. 94). Esto fue en el siglo VI a. C., al final de todo el proceso evolutivo a que nos hemos referido.

Lo dicho significa que la bóveda nunca alcanzó alturas simbólicas, ni en Egipto ni en Mesopotamia. Nunca fue acentuada exteriormente ni siquiera hecha visible. Permaneció debajo de la tierra, sin luz. El espacio y la luz están unidos. Sin la luz, el espacio desaparece. Para que la cúpula alcanzara su importante puesto en la arquitectura, hubo que llevar luz a su interior y acentuar el aspecto externo de su forma monumental. Para esto era necesaria una concepción espacial completamente diferente.

La orientación cósmica del patio interior

Los patios interiores, recintos sin techo dentro de un edificio, pueden tener varios significados. En un monasterio de la Edad Media, el claustro servía para la meditación y la contemplación. El patio de un castillo gótico era el único espacio abierto en el cual la población podían sentirse a salvo del ataque. Los patios de los palacios del Renacimiento mantuvieron la tradición de construir alrededor de un espacio abierto, pero con un carácter festivo.

Los enormes proyectos de casas de apartamentos del siglo XIX, en su deseo de sacar el máximo provecho del terreno, crearon muchos patios interiores degradados hasta el despreciable propósito de servir de patios de luces. Este fue el punto más bajo de una larga evolución.

El patio interior fue creado en Egipto, pero su significado era completamente diferente del de épocas posteriores. Desde el comienzo hasta el final, el patio interior egipcio estuvo orientado hacia el cosmos.

La forma corriente de la pirámide, el descubrimiento de la belleza del cuerpo humano —particularmente el cuerpo femenino— y la formación del patio interior, todo tuvo lugar durante la IV Dinastía.

Los grandes patios del complejo de Zoser no son patios interiores en sentido estricto. Son plazas rodeadas por diferentes edificios.

El patio interior propiamente dicho aparece por primera vez en los tres templos funerarios de Keops, Kefrén y Micerino, que eran inmediatamente adyacentes a las pirámides. Las reconstrucciones hechas por Lauer y Ricke a partir de los escasos restos de estos tres templos arrojan luz sobre su organización y significado.

El templo funerario y dedicado a la veneración, al que se accedía solamente por la larga calzada ascendente, significaba el lugar de transición antes de que el

rey difunto asumiera su existencia como dios: «La puerta de entrada al templo de veneración abría el camino al mundo de los astros, en el cual el alma del rey aparecía en forma de deidad celestial» (Schott, 1950, pág. 199). Esto fue expresado simbólicamente en términos arquitectónicos cuando la calzada ascendente, después de atravesar algunas cámaras intermedias, desembocaba en el soleado patio interior, el único lugar de todo el conjunto que estaba completamente abierto al cielo y dentro del cual la luz entraba libremente. El patio estaba enmarcado por columnas cuadradas entre las cuales —en el templo de Kefrén— había estatuas sedentes del rey. Estos patios eran los antepasados de los grandes patios de los templos tebanos, donde, más de un milenio después, lograron su forma monumental.

Los templos del Imperio Nuevo tenían dos orientaciones. La orientación horizontal significaba que la existencia es un viaje eterno, tanto en la vida como en la muerte. Cada parte del templo era un lugar de paso, excepto por lo que se refiere al santuario más interior, en el cual residía el dios, y aun allí la barca sagrada permanecía junto a la cella, dispuesta para transportar la pequeña estatua de madera de un templo a otro.

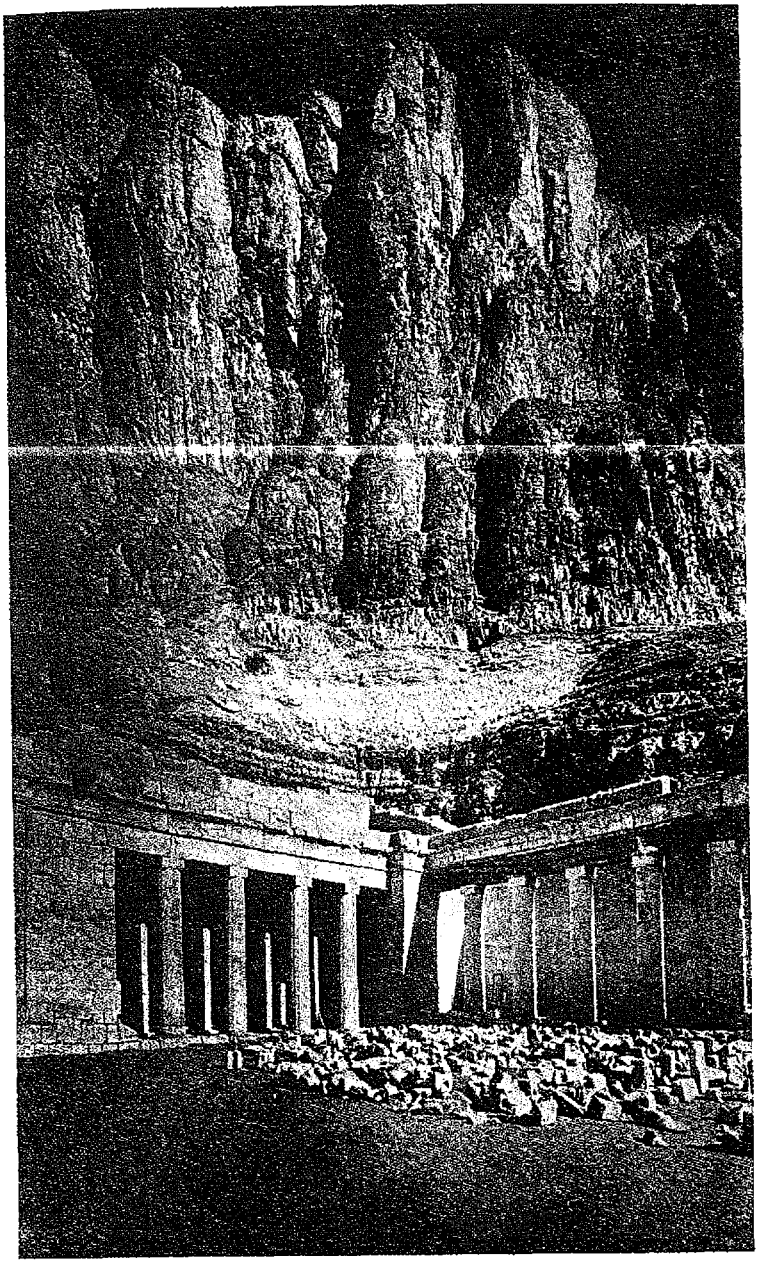
La orientación vertical estaba directamente relacionada con el cosmos tanto en las salas hipóstilas cubiertas como en los patios abiertos. La arquitectura del patio rectangular del templo de Amenofis III en Luxor lo confirma bien. Delante del santuario se alza una sala hipóstila techada con cuatro series de columnas papiriformes en densa formación. Falta la cuarta pared, de manera que la sala hipóstila se abre directamente al amplio patio interior rodeado de columnas idénticas de granito rosado, creando una unidad de fuerza desacostumbrada.

Tanto los techos de la sala hipóstila como los de los peristilos tienen el mismo tratamiento simbólico. Las columnas son como plantas que crecen hasta el cielo azul; no se pretende expresar su función como elementos de sostén. Esto ocurrió dondequiera que se construyeron templos, hasta el final del período tolemaico y en la época romana.

Antes, en los comienzos del Imperio Nuevo, Senmut logró una audaz solución individual, llevando a su apogeo el impulso ascensional del santuario egipcio. En la segunda y principal terraza del templo funerario de Hatsepsut en Deir el-Bahari, Senmut erigió dos alas de columnas: el ala oriental, dividida por la ancha rampa que conduce hasta la tercera terraza, y el ala norte, incompleta, cuya única fila de columnas forma parte de la alta pared del risco. Entre ellas, una transformación asimétrica del anterior patio interior se abre a una perspectiva ininterrumpida sobre el valle del Nilo y el gran circo de riscos.

La tercera y más alta de las terrazas estaba protegida por una alta pared. El visitante era conducido lentamente hacia arriba, hasta la entrada a un patio cerrado rodeado de columnas, con capillas dedicadas a Amón, Tutmosis I y Hatsepsut, excavadas profundamente en la pared rocosa. Este patio, con su altar solar, está más cerca del santuario solar de Niuserre que de los patios interiores de la IV Dinastía. El impulso ascensional ha sido llevado al límite por un gran arquitecto que tuvo el valor de enlazar sin vacilaciones lo formado y lo informe, acercándose peligrosamente a las altas torres, como tubos de órgano, de los baluartes rocosos.

De la estrecha relación de las formas arquitectónicas abstractas y la naturaleza



327. El patio interior cósmico: Angulo noroeste de la segunda terraza del templo funerario de Hatsepsut; sobre el peristilo se alzan imponentes riscos.

imperturbada surge una unidad de fuerzas aparentemente contradictorias, como en todos los aspectos de la religión egipcia. «Ningún templo griego —comentó Ricke— que aspirase a expresar su monumentalidad orgánica activa contrastando su tensa forma con una pared rocosa inorgánica podría haber logrado la monumentalidad en semejante entorno, por grande y noble que hubiera sido su forma. La forma del templo egipcio de Hatsepsut parece haber cristalizado del propio circo de rocas» (1944, pág. 17).

La sabiduría arquitectónica de todo el conjunto no se limita a su forma visible. Como un auténtico poema, su fuerza no estriba solamente en la acumulación de palabras sonoras, sino más bien en la manera inexplicable en la cual las palabras se integran en un significado interno. En el impulso hacia una más alta aspiración, el genio de este arquitecto logró forjar una almalgama de forma y lugar. Este raro logro no está limitado a ciertos períodos. Es siempre uno de los objetivos más altos de la arquitectura.

Con esto llegamos al final de los períodos que aquí nos interesan directamente, pero el problema de la constancia y el cambio no acaba, y parece incoherente terminar bruscamente como si estos períodos permanecieran aislados. Por consiguiente, siguen unas cuantas observaciones fragmentarias referentes a posteriores transformaciones.

Las tres concepciones espaciales arquitectónicas

Lo propio de la concepción espacial arquitectónica consiste en abarcar un amplio espacio de tiempo, el cual está compuesto a su vez de períodos muy diferentes. La concepción espacial arquitectónica tiene un carácter mucho más general que la pintura o la escultura. La arquitectura de Egipto y Grecia comparte la misma concepción espacial, pero la escultura de estos países es fundamentalmente diferente. Por otra parte, la concepción espacial arquitectónica abarca diferencias mucho mayores dentro de su período que las demás artes. Varios períodos fuertemente contrastantes coinciden básicamente en su planteamiento del espacio arquitectónico. En este contexto, tanto las pirámides de Gizeh como la Acrópolis de Atenas expresan una relación similar con el espacio interior y exterior. Ni los griegos ni los egipcios desarrollaron nunca el espacio interior con la misma intensidad que emplearon en relacionar su arquitectura con el cosmos.

Desde los comienzos de la arquitectura ha habido solamente dos concepciones espaciales básicas, como reconocieron Riegl y Schmarsow. Una tercera concepción que reúne características de ambas pero que, en cierta medida, va más lejos que cualquiera de las dos, se está formando ahora.

La primera etapa abarcó tanto las grandes civilizaciones arcaicas como la evolución griega. Se colocaban objetos escultóricos —volúmenes— en el espacio ilimitado.

La segunda etapa de la evolución arquitectónica se inició en la mitad de la época romana. El espacio interior, y con él todo el problema del abovedamiento, llegó a ser el objetivo principal de la arquitectura. En la concepción espacial de esta segunda etapa, la idea del espacio arquitectónico era casi idéntica a la idea de espacio interior hueco. Desde la Antigüedad tardía en adelante, el espacio hueco —el espacio interior circunscrito— fue el mejor logro del arte de construir.

Las mejores técnicas han sido consagradas al modelado del espacio interior, y en los métodos de abovedamiento la imaginación ha tenido su mayor libertad de expresión. Así, los distintos medios de abovedamiento del espacio interior señalan la evolución de esta etapa de la arquitectura.

El Panteón romano, con sus precursores parciales, señala el comienzo. La segunda concepción espacial abarca el período comprendido entre la construcción de las grandes bóvedas romanas, tales como las termas, y el final del siglo XVIII.

La tercera fase de la evolución arquitectónica fue prefigurada en los comienzos del siglo XIX. Este siglo actuó como período de transición. En apariencia fueron empleadas indiscriminadamente todas las formas estilísticas, junto con medios de formación del espacio interior tomados de todas las épocas (como reconoció Paul Frankl). Pero en las estructuras más anónimas de este siglo se hallan sugerencias e indicios que solamente podían adquirir contenido artístico y vida con la apertura de la tercera concepción espacial en los comienzos de nuestro siglo.

La tercera concepción espacial contiene elementos tanto de la primera como de la segunda etapas. Ha descubierto de nuevo las propiedades que emanan de los volúmenes en el espacio, sin renunciar al modelado del espacio interior. La integración de estos dos elementos básicos da origen a otros nuevos que presagian una tercera fase de evolución.

La primera concepción espacial arquitectónica

La primera concepción espacial arquitectónica puede resumirse brevemente:

La concepción espacial primeva, con su total libertad de direcciones, y la absoluta ausencia de compromiso con la cual sitúa los objetos en el espacio sin preocuparse de la relación con sus límites o con su entorno, persistió a través de los tiempos prehistóricos.

Poco antes del comienzo del período histórico se produjo una revolución fundamental en el campo de la visión. En lugar de un número ilimitado de direcciones, las relaciones fueron reducidas a una: la vertical, con su necesario complemento, la horizontal. El comienzo de la arquitectura coincide con la instauración de la supremacía de la vertical, el ángulo recto, el eje y la simetría. La desaparición de la libertad de direcciones implicó la desaparición de la libertad de las superficies. Surgió la superficie plana, lisa y sin sombras, y con ella una belleza totalmente nueva.

La primera concepción espacial arquitectónica estaba relacionada con el poder procedente de los volúmenes, sus relaciones mutuas y su interacción. Esto vincula las evoluciones egipcia y griega. Ambas actúan hacia fuera a partir del

volumen, aunque el templo griego, con sus pórticos creadores de sombra y el complejo plasticismo de sus entablamentos y frontones, es tan diferente del templo egipcio como el relieve rehundido egipcio, plano, lo es de la estatua griega completamente modelada por todas partes.

Los égipcios también tenían templos rodeados de pórticos. Borchardt los ha examinado exhaustivamente, porque representan un primer paso hacia el templo griego. Estos templos egipcios eran almacenes para la barca solar o capillas laterales, y eran escasos.

El templo griego se levanta como un cristal en el espacio. Aun así, la poca atención concedida a su espacio interior lo relaciona con sus precursores egipcios. Riegl observó que ambos carecían de los medios más simples de comunicación entre el interior y el exterior: las ventanas (1927, pág. 39).

Los patios interiores de los templos egipcios, con su orientación ascendente, estaban directamente relacionados con el cosmos. Simultáneamente los templos estaban orientados directamente hacia la tierra. Eran el cordón umbilical que unía los tiempos históricos con los primevos. Para los egipcios, la oscuridad de la noche no estaba cargada de ansiedad, como para nosotros. Los egipcios confiaban en la oscuridad como en la región atravesada cada noche por su dios solar en su eterno viajar. Era en la oscuridad donde podía establecerse contacto con las fuerzas sobrenaturales. En los tiempos primevos, los símbolos más sagrados permanecían ocultos en las partes más inaccesibles de las cavernas. Lo mismo ocurría en el templo egipcio. El lugar más sagrado, con la pequeña estatua procesional de la deidad, era una oscura cella en el extremo más alejado del templo. Sólo el faraón, el hijo del dios, y el sumo sacerdote tenían acceso a la misma.

Las estatuas del *ka* de los reyes difuntos permanecían en la oscuridad, como la del rey Zoser, esperando en su *serdab* en el lado norte de la pirámide. Los que le visitaban podían como mucho captar una mirada de sus ojos de cristal. La noche oscura de los corredores de la pirámide, el cerrado santuario del templo y las oscuras salas hipóstilas expresan la misma actitud, explicando la postura de los egipcios hacia el espacio interior. Tanto Sumer como Egipto construían el espacio interior cuando surgía la necesidad, e incluso el espacio abovedado, pero no tenían ningún interés en ello.

La iluminación interior, que llegaría a ser un medio decisivo para la creación de formas junto con los problemas de abovedamiento de la segunda concepción espacial, era casi completamente despreciada en Egipto. Así se comprende que Riegl acentúe la «espaciofobia» de los egipcios y que W. Worringer describa su arquitectura como «preespacial».

La segunda concepción espacial arquitectónica

Las bóvedas existían desde los tiempos en que comenzó la arquitectura, pero su capacidad de intensificación de la experiencia religiosa y secular no fue conocida hasta la Roma imperial. Esta capacidad apareció junto con la relación simbólica del espacio interior con el cosmos, lo mismo que los poderes de los volúmenes en el espacio (los zigurats y las pirámides) se manifestaron en las primeras

civilizaciones arcaicas. Bajo la cúpula giratoria de la Domus Aurea de Nerón, que representaba el movimiento de las estrellas y que sólo es conocida por su reproducción en monedas (Boëthius, 1960), el emperador era identificado con el creador del universo. Una escena similar aparece en la sala del trono de Domiciano.

La cúpula del panteón de Adriano, de comienzos del siglo II, señaló la completa irrupción de la segunda concepción espacial. Desde ese momento el concepto de espacio arquitectónico fue casi indistinguible del concepto de espacio interior hueco. Desde los tiempos romanos, los períodos cambiantes desarrollaron el abovedamiento para expresar sus diferentes necesidades emotivas. Las simples bóvedas de cañón y las cúpulas de la villa de Adriano en Tívoli conducen a la evolución de complicados espacios interpenetrantes.

Bizancio continuó ese proceso. La cúpula dorada de Hagia Sophia con su franja de luz fue concebida como si descendiera del cielo, el dosel simbólico del cosmos.

En las perforadas iglesias de Justiniano en Rávena se puso mucha atención en modelar la iluminación interna de modo que robusteciera la configuración del espacio arquitectónico.

En las catedrales góticas esto fue llevado más lejos, con gran sutileza. El modelado de la luz formaba parte de su significado.

Hay una inmensa diferencia entre un templo egipcio y un templo griego, pero ambos caen dentro de la primera concepción espacial: situación de los volúmenes en el espacio e indiferencia hacia el espacio interior. En la segunda concepción espacial aparecieron diferencias en la construcción y en el significado del modelado del espacio interior. El contenido simbólico de las cúpulas del Panteón, Hagia Sophia, los edificios del Renacimiento y las cúpulas tardobarrocas de Borromini, Guarini y Balthasar Neumann es ampliamente diferente, pero todos están comprendidos dentro de la gran curva de la segunda concepción espacial.

Ambas etapas se manifiestan por sus concepciones espaciales. Pero la evolución que atraviesa períodos de tiempo tan grandes, lugares y pueblos tan diferentes, y sistemas sociales tan distintos, solamente puede tomar la forma de una envoltura fluida, global, dejando un margen para las diferentes expresiones de contenido. Una evolución polifacética fluye desde las pirámides hasta el Partenón, aunque los contrastes de escala, forma, plano y estructura saltan a la vista. La continuidad de una concepción espacial definida no se interrumpe. Esta es la roca firme sobre la cual, sin que sus creadores lo sepan, se fundan las dos grandes épocas arquitectónicas.

La suposición de Riegl de que el objetivo supremo de la arquitectura, desde el Panteón, ha sido la formación del espacio interior, no ha sido puesta en duda. Al mismo tiempo, no se puede pasar por alto la variedad del modelado de los volúmenes exteriores por medio de la luz y la sombra. Esto comenzó en la época de la primera concepción espacial, en el modelado de los templos griegos, y tuvo su desarrollo más dramático en los arbotantes, las agujas caladas y los pórticos cóncavos de las catedrales góticas. También se trataba de volúmenes, pero que actuaban como flechas dirigiendo la mirada al interior. Una investigación más rigurosa en las relaciones del espacio interior y exterior en la segunda concepción espacial, y en los pocos casos en que el edificio entero fue tratado como una escultura, po-

dría mostrarnos algunos vínculos de unión entre las concepciones segunda y tercera.

La tercera concepción espacial arquitectónica

Durante el Renacimiento, el hombre occidental se interesó mucho en la exploración de la perspectiva óptica en términos de las apariencias y del escorzo de los objetos.

En nuestra época, la preocupación por la apariencia de los objetos ha dado paso a otro problema. Las investigaciones en la naturaleza del espacio han sustituido a la preocupación por la apariencia física. Probablemente no es mucho decir que todo artista —desde luego todo escultor— está interesado en la exploración del espacio y en los modos de captación de este medio intangible. Las figuras de Alberto Giacometti crean espacio todo alrededor, habiendo reducido sus propias formas al máximo. Las *surfaces dévelopables* de Antoine Pevsner absorben la luz y la transmiten al mismo tiempo. Jacques Lipchitz llevó a cabo un temprano ataque sobre el volumen sólido y disolvió sus figuras en líneas de fuerza curvas que definen simultáneamente el espacio interior y exterior. La desmaterialización del volumen sólido puede observarse ahora en la obra de casi todos los escultores contemporáneos.

Fue Alexander Archipenko quien, de 1909 a 1915, indicó lo que resultaría ser la dirección decisiva para los escultores posteriores. Archipenko extrajo las posibilidades prácticas de desmaterializar los volúmenes sólidos. En sus figuras de bronce lo sólido y lo vacío, lo de dentro y lo de fuera, fluyen continuamente entre sí. Archipenko describe esto como la modulación del espacio y lo cóncavo. Sus continuas transiciones intangibles desde volumenes convexos firmemente modelados hasta interiores cóncavos simbolizan esta modulación.

Como resultado de su interacción de formas naturales y abstracción, algunas de las estatuas de Archipenko parecen tener solamente un pecho. Aunque esto es corriente en los relieves egipcios, las razones son completamente diferentes. Detrás de las estatuas de Archipenko se halla la experiencia de dos milenios de modelado del espacio interior. Su interacción plástica del espacio interior y exterior anticipó, en cierta medida, las tendencias arquitectónicas de la década de 1960.

Los volúmenes en el espacio

Los edificios, como las esculturas, irradian su propia atmósfera espacial, y de nuevo hemos llegado a sentir la fuerza que emana de los volúmenes en el espacio. Hoy el arquitecto tiene que entendérselas con los problemas de relacionar los volúmenes de las estructuras altas y bajas. Como en sus primeros comienzos, la arquitectura se aproxima de nuevo a la escultura y la escultura se aproxima a la arquitectura. Están casi dispuestas para la integración.

El espacio interior

El modelado del espacio interior continúa, pero hay un profundo cambio en el planteamiento de su abovedamiento. Durante la segunda concepción espacial se concebía la cubierta como algo firmemente apoyado en las paredes. El foco de un techo abovedado estaba en su punto más alto, en el centro. En la tercera concepción espacial, las cubiertas abovedadas de algunos de los edificios más avanzados parecen estar suspendidas por encima de las paredes, como en la capilla de peregrinación de Le Corbusier en Ronchamp (1955), donde un techo cóncavo se alza hasta las paredes, acentuada la separación por una estrecha banda de vidrio. En otras palabras, el punto anterior de máxima altura es ahora el más bajo. La curva, elevándose hasta las paredes, indica que no se detiene aquí sino que se extiende más lejos en el espacio, como un pájaro con las alas desplegadas. La bóveda de hormigón, delgada como un cascarón de huevo, contribuye a hacer realidad estas nuevas exigencias.

Esta es solamente una de las posibilidades. Pero existen otras muchas: estamos sólo empezando. Es posible que nuestra época pueda desarrollar varias clases de bóvedas. No puede decirse cómo se desarrollará la tercera concepción espacial, pero sus direcciones generales son evidentes. La misión del historiador no consiste simplemente en aclarar el pasado, sino también en reconocer los signos que conducen al futuro.

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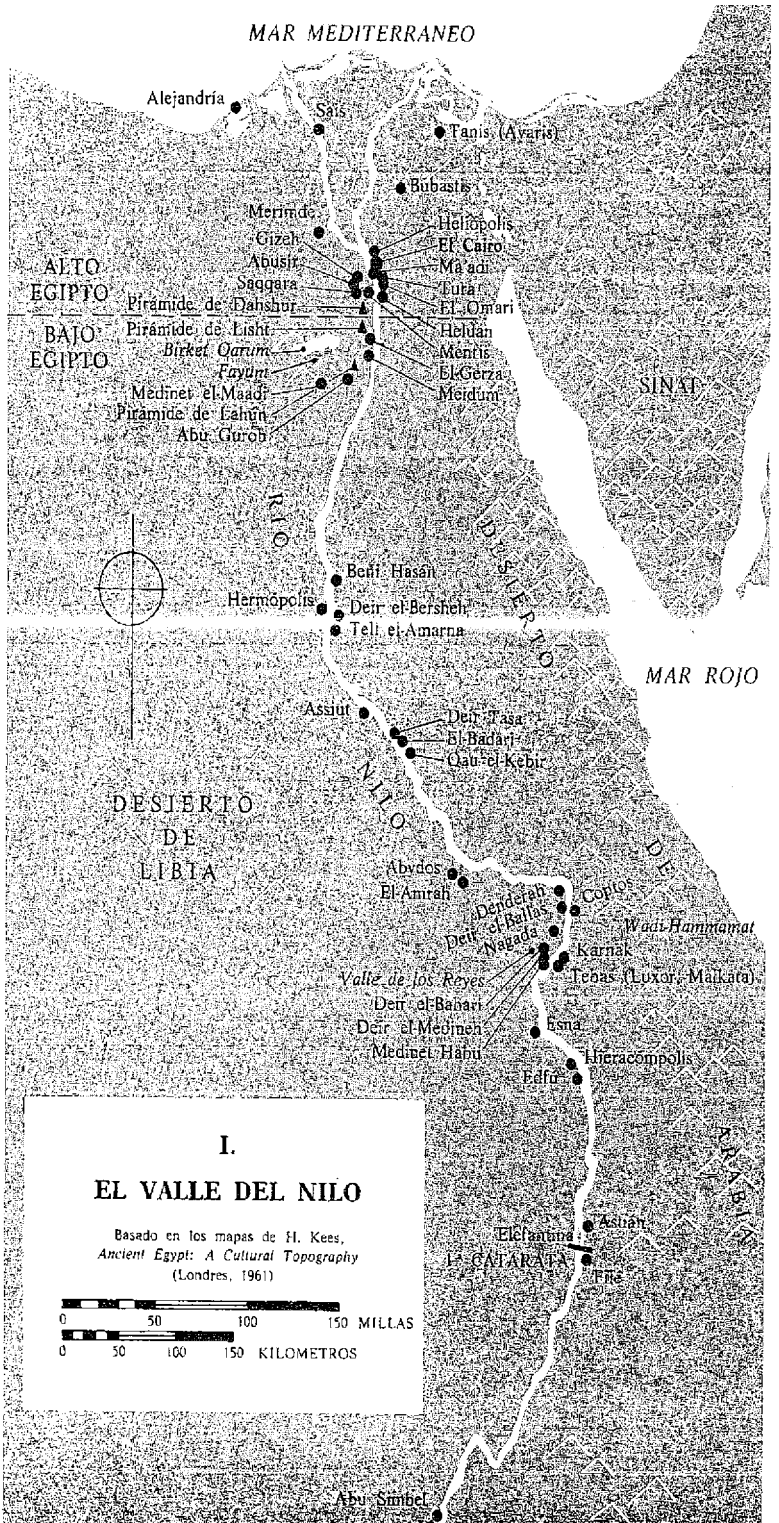


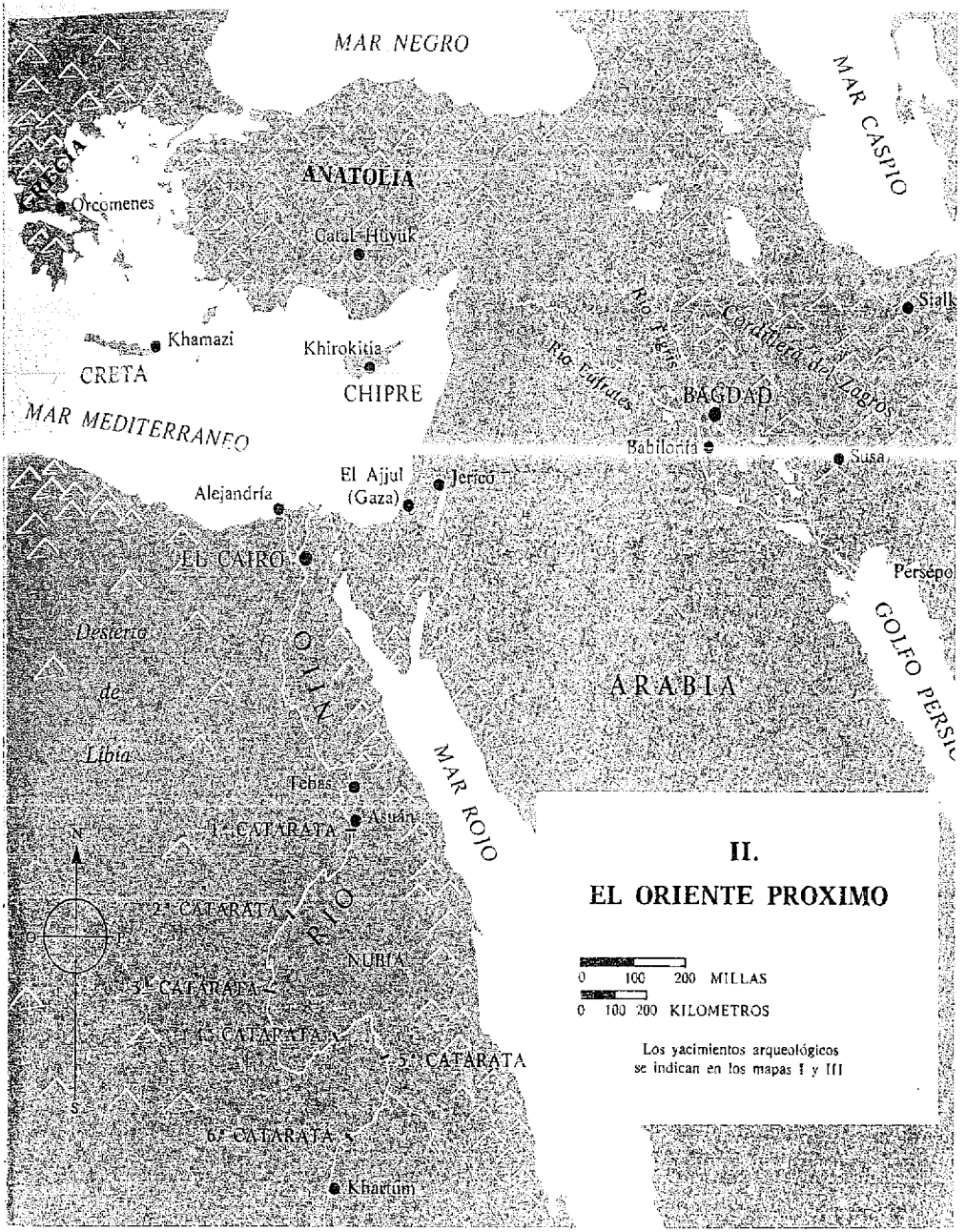
I.

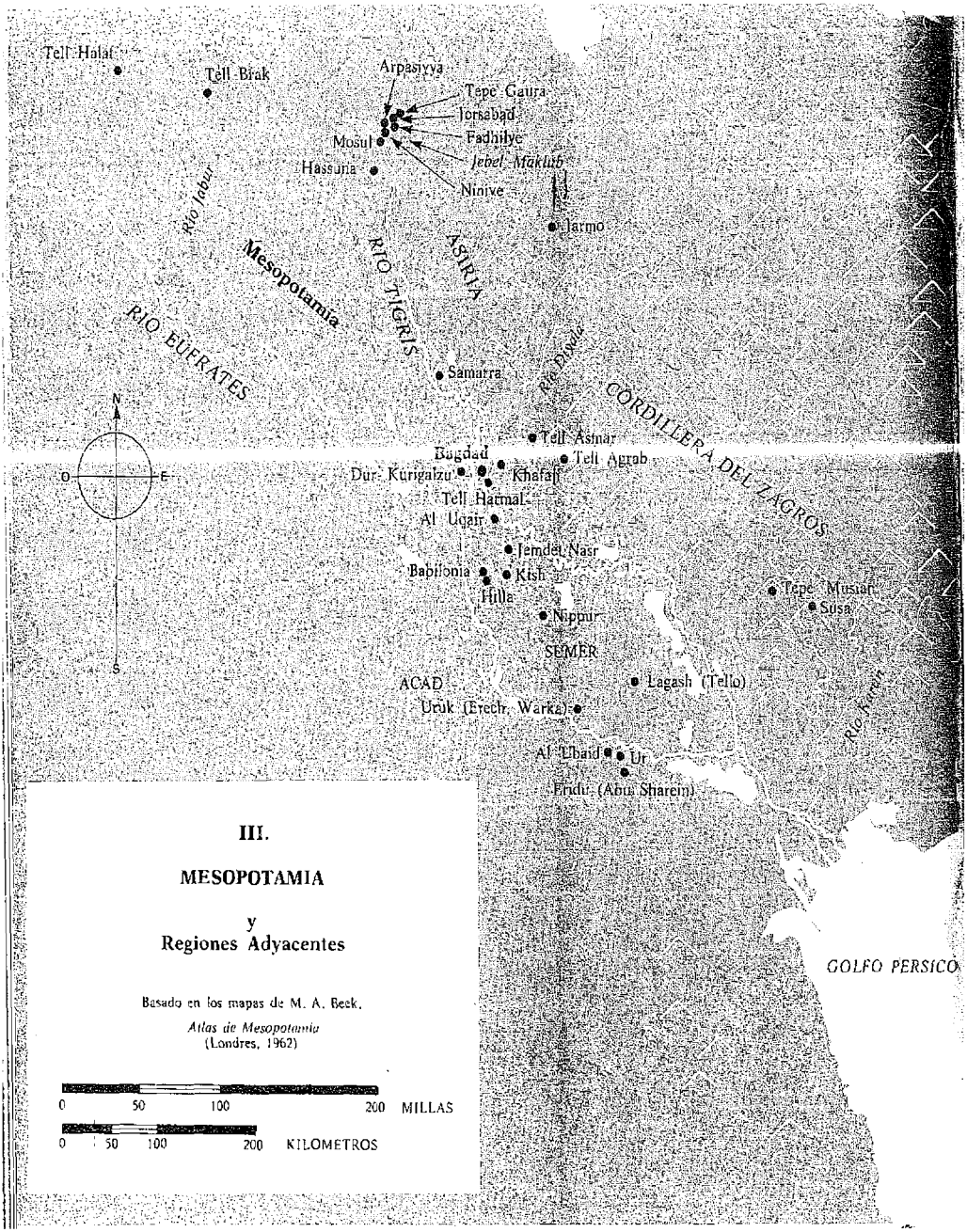
EL VALLE DEL NILO

Basado en los mapas de H. Kees, *Ancient Egypt: A Cultural Topography* (Londres, 1961)

0 50 100 150 MILLAS

0 50 100 150 KILOMETROS


MAR NEGRO
MAR CASPIO
ANATOLIA
Orcomenes
Catal Hüyük
Khamazi
Khirokitia
CRETA
CHIPRE
MAR MEDITERRANEO
Río Tigris
Río Eufrates
Cordillera del Zagros
Sialk
BAGDAD
Babilonia
Susa
El Ajjul (Gaza)
Jericó
Alejandría
EL CAIRO
Persépo
GOLFO PERSI
Desierto de Libia
NILO
ARABIA
MAR ROJO
Tebas
Asuán
1ª CATARATA
2ª CATARATA
NUBIA
3ª CATARATA
4ª CATARATA
5ª CATARATA
6ª CATARATA
Khartum
N
O
E
S
II.
EL ORIENTE PROXIMO
0 100 200 MILLAS
0 100 200 KILOMETROS
Los yacimientos arqueológicos se indican en los mapas I y III



III.

MESOPOTAMIA

y

Regiones Adyacentes

Basado en los mapas de M. A. Beek.

Atlas de Mesopotamia
(Londres, 1962)

0 50 100 200 MILLAS

0 50 100 200 KILOMETROS